LG Electronics Inc.

P/NO : 3829RVP044A

MARCH, 2003

SERVICE MANUAL

MODELS : LV2378/LV2578/LV2288/LV2788/LV3398/LV3598/LV3798/LV3799(FC230Y/FC431Y/FD240Y/FD941NY/FC290Y/FC491Y/FC991NY/FC999NY)

LG Electronics Inc.

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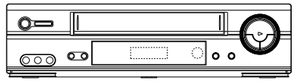
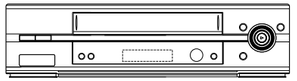
VIDEO CASSETTE RECORDER

SERVICE MANUAL

MODELS : LV2378/LV2578/LV2288/LV2788/LV3398/LV3598/LV3798/LV3799
(FC230Y/FC431Y/FD240Y/FD941NY/FC290Y/FC491Y/FC991NY/FC999NY)

CAUTION
BEFORE SERVICING THE UNIT, READ THE "SAFETY PRECAUTIONS" IN THIS MANUAL.


LV2378/LV2578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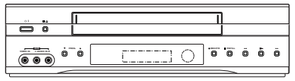
LV3398/LV3598/LV3798/LV3799

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SECTION1 SUMMARY
KEY TO ABBREVIATIONS

A	AC	:Alternating Current
	ACC	:Automatic Color Control
	ACSS	:Automatic Channel Setting System
	ADJ	:Adjust
	A/E	:Audio Erase
	AFC	:Automatic Frequency Control
	AFT	:Automatic Fine Tuning
	AGC	:Automatic Gain Control
	A.H.SW	:Audio Head Switch
	ALC	:Automatic Level Control
	AM	:Amplitude Modulation
	AMP	:Amplifier
	ANT	:Antenna
	APC	:Automatic Phase Control
	ASS'Y	:Assembly
	AUX	:Auxiliary
B	B	:Base
	BGP	:Burst Gate Pulse
	BPF	:Bandpass Filter
	BS	:Brodcasting Satellite
	BW or B/W	:Black and White
C	C	:Capacitor, Chroma, Collector
	CAN	:Cancel
	CAP	:Capstan
	CAP.BRK	:Capstan Brake
	CAP.RVS	:Capstan Reverse
	CATV	:Cable Television
	CBA	:Circuit Board Assembly
	CCD	:Charge Coupled Device
	C.CTL	:Chro Control, Capstan Control
	CFG	:Capstan Frequency Generator
	CHROMA	:Chrominance
	CNR	:Chroma Noise Redution
	COMB	:Combination Comb Filter
	COMP	:Comparator Composite Compensation
	CONV	:Converter
	C.ROT SW	:Color Rotary Switch
	CS	:Chip Selcet
	C.SYNC	:Composite Synchronization
	CTL DIV	:Control Divide
	CUR	:Current
	CYL	:Cylinder
D	D	:Drum, Digital, Diode, Drain
	D.ADJ	:Drum Adjust
	DC	:Direct Current
	D.CTL	:Drum Control
	DEMOD	:Demodulator
	DET	:Detector
	DEV	:Deviation
	DHP	:Double High Pass
	DIGITRON	:Digital Display Tube
	DL	:Delay line
	DOC	:Drop Out Compensator
	DUB	:Dubbing
	D.V SYNC	:Dummy Vertical Synchronization
E	E	:Emitter
	EE	:Electric to Eletric
	EMPH	:Emphasis
	ENA	:Enable
	ENV	:Envelope
	EP	:Extended Play
	EQ	:Equalizer
	EXP	:Expander
F	F	:Fuse
	FB	:Feed Back
	FBC	:Feed Back Clamp
	FE	:Full Erase
	FG	:Frequency Generator
	FL	:Filter
	FM	:Frequency Modulation
	F/R	:Front/Rear
	FS	:Frequency Synthesizer
	FSC	:Subcarrier Frequency
	F/V	:Frequency Voltage
G	GEN	:Generator
H	H	:High, Horizontal
I	IC	:Integrated Circuit
	IF	:Intermediate Frequency
	INS	:Insert
L	L	:Low, Left, Coil
	LD	:LED
	LD VTG CTL	:Loading Voltage Control
	LECHA	:Letter Character
	L.M	:Level Meter
	LP	:Long Play
	LPF	:Low Pass Filter
M	MAX	:Maximum
	MD	:Modulator
	MECHA.CTL	:Mechanism Control
	MIC	:Microphone
	MIN	:Minimum
	MIX	:Mixer, Mixing
	M.M.	:Monostable, Multivibrator
	MMV	:Mono Multi Vibrator
	MOD	:Modulation, Modulator
	MODEM	:Modulator-Demodulator
	MPX	:Multiplex
N	NR	:Noise Reduction
O	OSC	:Oscillator
	OSD	:On Screen Display
P	PB	:Playback
	PCB	:Printed Circuit Board
	P.CTL	:Power Control
	PRE-AMP	:Preamplifier
	P.F	:Power Failure
	PG	:Pulse Generator
	PLL	:Phase Locked Loop
	PREM.DET	:Premire Detect
	P.P	:Peak-to-Peak
	PS	:Phase Shift
	PWM	:Pulse Width Modulation
	PWR CTL	:Power Control
Q	Q	:Transistor
	QH	:Quasi Horizontal
	QSR	:Quick Setting Record
	QTR	:Quick Timer Record
	QV	:Quasi Vertical
R	R	:Resistor, Right
	RE(or RC)	:Remocon, Receiver
	REC	:Recording
	REC S 'H'	:Record Start 'Hight'
	REF	:Reference
	REG	:Regulated, Regulator
	REMOCON	:Remote Control(unit)
	RF	:Radio Frequency
	R/P	:Record/Playback
	RTC	:Reel Time Counter
S	S	:Serial
	S.ACCEL	:Slow Accel
	SAOP	:Second Audio Program
	SC	:Scart, Simulcast
	S.DET	:Secam Detect
	SH	:Shift
	SHARP	:Sharpness
	SIF	:Sound Intermediate Frequency
	SLD	:Side Locking
	S/N	:Signal to Noise Ratio
	SP	:Standard Play
	ST	:Stereo
	SUB	:Subtract, Subcarrier
	SW or S/W	:Switch
	SYNC	:Synchronization
	SYSCON	:System Control
T	T	:Coil
	TP	:Test Point
	TR	:Transistor
	TRK	:Tracking
	TRANS	:Transformer
	TU	:Tuner, Take-up
U	UHF	:Ultra High Frequency
	UNREG	:Unregulated
V	V	:Volt, Vertical
	VA	:Always Voltage
	VCO	:Voltage Controlled Oscillator
	VGC	:Voltage Gain Control
	VHF	:Very High Frequency
	V.H.SW	:Video Head Switch
	VISS	:VHS Index Search
	VPS	:Video Program System
	VR	:Variable Resistor or Volume
	V-SYNC	:Vertical Synchronization
	VTG	:Voltage
	VV	:Voltage to Voltage
	VXO	:Voltage X-tal Oscillator
W	W	:Watt
	WHT	:White
	W/O	:With out
X	X-TAL	:Crystal
Y	Y/C	:Luminance/Chrominance
	YNR	:Luminance Noise Reduction
Z	ZD	:Zener Diode

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PRODUCT SAFETY SERVICING GUIDELINES FOR VIDEO PRODUCTS

IMPORTANT SAFETY NOTICE

This manual was prepared for use only by properly trained audio-video service technicians.

When servicing this product, under no circumstances should the original design be modified or altered without permission from LG Electronics Corporation. All components should be replaced only with types identical to those in the original circuit and their physical location, wiring and lead dress must conform to original layout upon completion of repairs.

Special components are also used to prevent x-radiation, shock and fire hazard. These components are indicated by the letter “x” included in their component designators and are required to maintain safe performance. No deviations are allowed without prior approval by LG Electronics Corporation.

Circuit diagrams may occasionally differ from the actual circuit used. This way, implementation of the latest safety and performance improvement changes into the set is not delayed until the new service literature is printed.

CAUTION: Do not attempt to modify this product in any way. Never perform customized installations without manufacturer’s approval. Unauthorized modifications will not only void the warranty, but may lead to property damage or user injury.

Service work should be performed only after you are thoroughly familiar with these safety checks and servicing guidelines.

GRAPHIC SYMBOLS

The exclamation point within an equilateral triangle is intended to alert the service personnel to important safety information in the service literature.

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the service personnel to the presence of noninsulated “dangerous voltage” that may be of sufficient magnitude to constitute a risk of electric shock.

The pictorial representation of a fuse and its rating within an equilateral triangle is intended to convey to the service personnel the following fuse replacement caution notice:

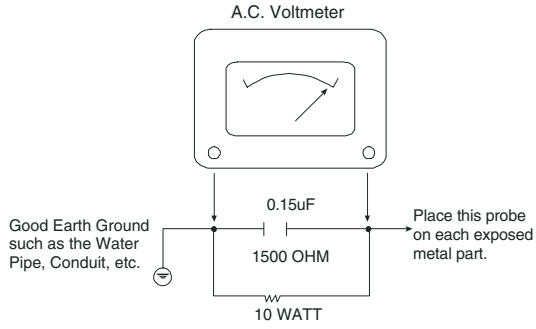
CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ALL FUSES WITH THE SAME TYPE AND RATING AS MARKED NEAR EACH FUSE.

SERVICE INFORMATION

While servicing, use an isolation transformer for protection from AC line shock. After the original service problem has been corrected, make a check of the following:

FIRE AND SHOCK HAZARD

1. Be sure that all components are positioned to avoid a possibility of adjacent component shorts. This is especially important on items trans-ported to and from the repair shop.
2. Verify that all protective devices such as insulators, barriers, covers, shields, strain reliefs, power supply cords, and other hardware have been reinstalled per the original design. Be sure that the safety purpose of the polarized line plug has not been defeated.
3. Soldering must be inspected to discover possible cold solder joints, solder splashes, or sharp solder points. Be certain to remove all loose foreign particles.
4. Check for physical evidence of damage or deterioration to parts and components, for frayed leads or damaged insulation (including the AC cord), and replace if necessary.
5. No lead or component should touch a high current device or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. After reassembly of the set, always perform an AC leakage test on all exposed metallic parts of the cabinet (the channel selector knobs, antenna terminals, handle and screws) to be sure that set is safe to operate without danger of electrical shock. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST. Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm, 10 watt resistor, paralleled by a .15 mfd 150V AC type capacitor between a known good earth ground water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500 ohm resistor and .15 mfd capacitor. Reverse the AC plug by using a non-polarized adaptor and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts RMS. This corresponds to 0.5 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.


A.C. Voltmeter
0.15uF
Good Earth Ground such as the Water Pipe, Conduit, etc.
1500 OHM
Place this probe on each exposed metal part.
10 WATT

X-RADIATION

1. Be sure procedures and instructions to all service personnel cover the subject of x-radiation. The only potential source of x-rays in current TV receivers is the picture tube. However, this tube does not emit x-rays when the HV is at the factory-specified level. The proper value is given in the applicable schematic. Operation at higher voltages may cause a failure of the picture tube or high-voltage supply and, under certain circumstances may produce radiation in excess of desirable levels.
2. Only factory-specified CRT anode connectors must be used.
3. It is essential that the service personnel have available an accurate and reliable high-voltage meter.
4. When the high-voltage circuitry is operating properly, there is no possibility of an x-radiation problem. Every time a chassis is serviced, the brightness should be run up and down while monitoring the high voltage with a meter, to be certain that the high voltage does not exceed the specified value and that it is regulating correctly.
5. When troubleshooting and making test measurements in a product with a problem of excessively high voltage, avoid being unnecessarily close to the picture tube and the high voltage power supply. Do not operate the product longer than necessary to locate the cause of excessive voltage.
6. Refer to the CRT Anode High Voltage Measurement and Shutdown Adjustment procedures described in the appropriate text (where used).

IMPLOSION

1. All direct view picture tubes are equipped with an integral implosion protection system; take care to avoid damage during installation.
2. Use only the recommended factory replacement tubes.

TIPS ON PROPER INSTALLATION

1. Never install any receiver in a closed-in recess, cubbyhole, or closely fitting shelf space over, or close to, a heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as: outdoor patio installations where dew is a factor, near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct venting. The customer should also avoid the use of decorative scarves or other coverings that might obstruct ventilation.
4. Wall- and shelf-mounted installations using a commercial mounting kit must follow the factory-approved mounting instructions. A product mounted to a shelf or platform must retain its original feet (or the equivalent thickness in spacers) to provide adequate air flow across the bottom. Bolts or screws used for fasteners must not touch any parts or wiring. Perform leakage tests on customized installations.
5. Caution customers against mounting a product on a sloping shelf or in a tilted position, unless the receiver is properly secured.
6. A product on a roll-about cart should be stable in its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against using a cart or stand that has not been listed by Underwriters Laboratories, Inc. for use with its specific model of television receiver or generically approved for use with TVs of the same or larger screen size.
8. Caution customers against using extension cords. Explain that a forest of extensions, sprouting from a single outlet, can lead to disastrous consequences to home and family.

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SERVICING PRECAUTIONS

CAUTION : Before servicing the VCR covered by this service data and its supplements and ADDENDUMS, read and follow the *SAFETY PRECAUTIONS. NOTE* : if unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publications, always follow the safety precautions.
Remember Safety First:

General Servicing Precautions

1. Always unplug the VCR AC power cord from the AC power source before:
   (1) Removing or reinstalling any component, circuit board, module, or any other assembly.
   (2) Disconnection or reconnecting any internal electrical plug or other electrical connection.
   (3) Connecting a test substitute in parallel with an electrolytic capacitor.
   Caution : A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

2. Do not spray chemicals on or near this VCR or any of its assemblies.

3. Unless specified otherwise in this service data, clean electrical contacts by applying an appropriate contact cleaning solution to the contacts with a pipe cleaner, cotton-tipped swab, or comparable soft applicator.
   Unless specified otherwise in this service data, lubrication of contacts is not required.

4. Do not defeat any plug/socket B+ voltage interlocks with whitch instruments covered by this service manual might be equipped.

5. Do not apply AC power to this VCR and/or any of its electrical assemblies unless all solid-state device heat sinks are cerrectly installed.

6. Always connect test instrument ground lead to the appropriate ground before connection the test instrument positive lead. Always remove the test instrument ground lead last.

Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power on. Connect an insulation resistance meter(500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (Note 1) should be more than 1M-ohm.
Note 1 : Accessible Conductive Parts including Metal panels, Input terminals, Earphone jacks, etc.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor chip components.
The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a GROUNDED-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified a “anti-static” can generate electrical charges sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate electrical charge sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protec tive package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil, or comparable conductive material).

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Normally harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

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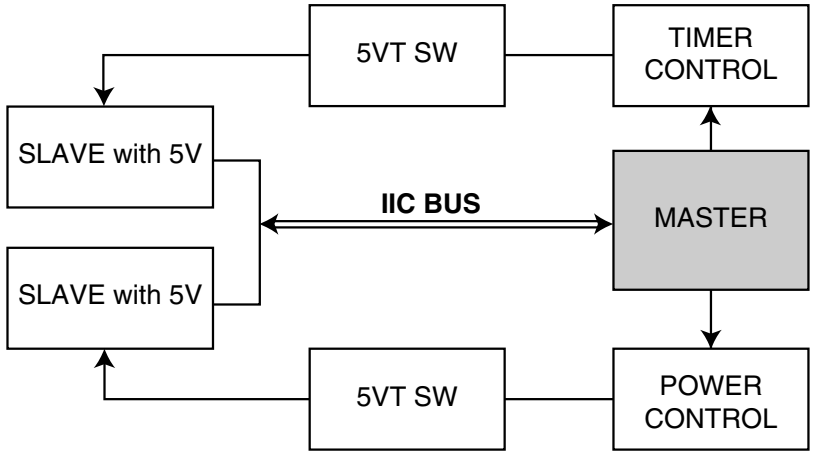
PROPOSAL FOR APPLYING SHORT PROTECTION

• The Contents of Examination

As all the IC that is applied to VCR is controlled by IIC, mutual communication, if Vcc of IC is short or open with detecting 'Acknowledge' data of the specific IC according to each power(5V, 5VT) μ-COM gets unable to detect 'ACK' data.

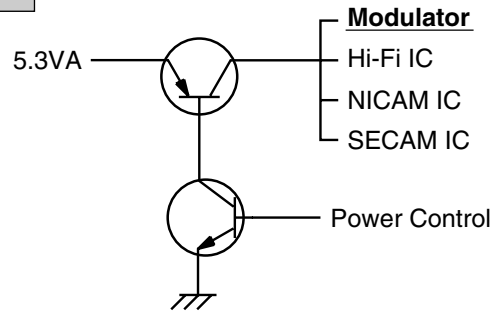
μ-COM regards this case as abnormal one and if it can't detect 'ACK' data for a certain time(3.5 sec) the signal of 'Power Control' and 'Timer Control' are switched to 'Low'. As a result POWER Switching TR is kept from generating heat and fire.

Conception BLOCK Diagram

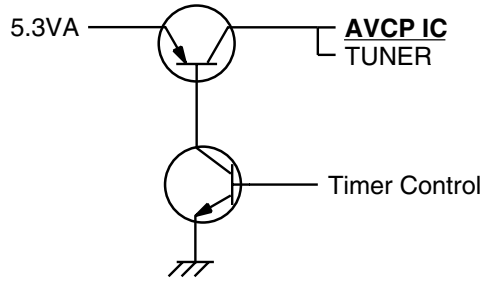


• POWER for each IC

5.2V



5.2VT



• IC to detect 'ACK' data is selected as below because IC is different in accordance to region and option

S/ Series	5V POWER	SECAM IC
	5VT POWER	AVCP IC
P/Y/I Series	5V POWER	Modulator
	5VT POWER	AVCP IC

*Short protection off mode : DJ01 Diode in

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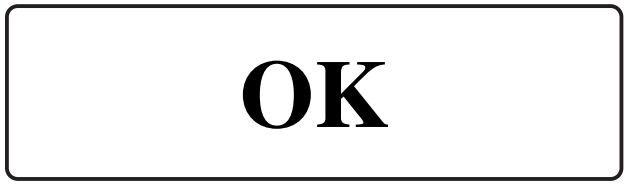
SERVICE NOTICE ON REPLACING EEPROM

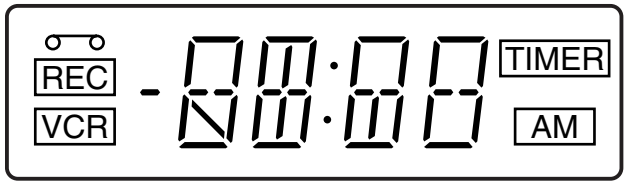
In case that defective EEPROM of PAL models is replaced, to operate these sets from the initial state MP KEY must be repaired as well before delivering to the customer.
If MP KEY isn't repaired the setting of RF OUT channel or LANGUAGE might be different from that for customer's country.

•**MP KEY** : In case of PAL VCR if holding the REC button on the front panel and the CLEAR button on the remote control handset for 5 ~ 7 seconds with power being switch all and no tapes,
OK is displayed at FLD for FLD models and LED becomes on for LED CLOCK models.
This is the state that initializing EEPROM is finished.
(In case of PAL VCP if holding the REC button on the front panel and the MENU button on the remote control handset for 5 ~ 7 seconds with power being off and no tapes, All the LED DOTs become on. This is the state that initializing EEPROM is finished.)

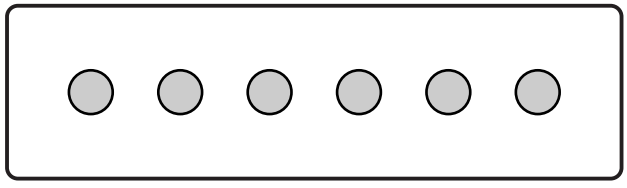
•**MP KEY's function** : MP KEY sets EEPROM's data up to the initial state.



• **FLD MODEL:**
MP KEY "OK"



• **LED CLOCK MODEL:**
MP KEY Switch all on a Light



• **LED DOT MODEL:**
MP KEY Switch all on a Light

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SERVICE INFORMATION FOR EEPROM IC SETTING

EEPROM option code No. setting

NAME	HEX	BINARY
OPT1	00	00000000
OPT2	00	00000000
OPT3	00	00000000
OPT4	00	00000000
OPT5	00	00000000
OPT6	00	00000000

WR : OK I : EXIT MOVE : ◀ ▶
EDIT : ▲▼

MASKROM : R00
EEPROM : R00 LG CODE

MODEL	NAME	HEX	BINARY
LV2378	OPTION1	02	00000000
	OPTION2	CA	00000000
	OPTION3	80	00000000
	OPTION4	F7	00000000
	OPTION5	00	00000000
	OPTION6	32	00000000
LV2578	OPTION1	30	00000000
	OPTION2	CA	00000000
	OPTION3	80	00000000
	OPTION4	F7	00000000
	OPTION5	00	00000000
	OPTION6	32	00000000
LV2288	OPTION1	02	00000000
	OPTION2	C8	00000000
	OPTION3	C0	00000000
	OPTION4	F7	00000000
	OPTION5	00	00000000
	OPTION6	32	00000000
LV2788	OPTION1	2C	00000000
	OPTION2	C8	00000000
	OPTION3	C0	00000000
	OPTION4	F7	00000000
	OPTION5	00	00000000
	OPTION6	32	00000000
LV3398	OPTION1	12	00000000
	OPTION2	CA	00000000
	OPTION3	80	00000000
	OPTION4	F7	00000000
	OPTION5	00	00000000
	OPTION6	32	00000000
LV3598	OPTION1	30	00000000
	OPTION2	CA	00000000
	OPTION3	80	00000000
	OPTION4	F7	00000000
	OPTION5	00	00000000
	OPTION6	32	00000000

EEPROM option code No. setting procedure

1. DETECT NEW EEPROM (OPTION EDIT SCREEN)
   - Eeprom EDIT screen automatically appears if replacing Eeprom.
   - Setup option data using the cursor Up/Down key of a remote control.
     (Setup upon BOM depending on OPT1~OPT6 model)
   - Since an initial remote control is set to LG for LG model, appropriately set optional data using the cursor Up/Down key.
2. EEPROM WRITED COMPLETE SCREEN
   - Writes data on EEPROM by using REMOCON "OK".
   - If completing the option data screen with a menu key, Powering Off is automatically done and the option edit screen is arranged.
3. PG ADJUST
   a) Insert the PAL SP Test Tape and play.
      Note - Adjust the distance of X, pressing the Tracking(+) or Tracking(-) when the “ATR” is blink after the PAL SP Test Tape is inserted.

   b) Press the Auto PG KEY on JIG Remocon(1’st) or Press “REC” key on set and “CLEAR” key on Remocon.(Then check the blink “TRK OK” on CLK/LED-TRK is a Initial)

   c) Press the Auto PG Key on JIG Remocon again (2’nd) or press “REC” key on set and “CLEAR” key on Remocon again.(Then check the blink “PG NG > PG OK” on CLK/LED.)

4. EEPROM INITIAL
   - SETUP is displayed in the field if pressing the FRONT REC KEY with the remocon number "CLEAR" key pressed in the status of powering Off.
   - AUTO SEARCH is done since the initial screen of ACMS is serviced if powering On.
   - Check basic operation (PLAY/RECORD...)

LV3798	OPTION1	3C	00000000
	OPTION2	CA	00000000
	OPTION3	80	00000000
	OPTION4	F7	00000000
	OPTION5	00	00000000
	OPTION6	32	00000000
LV3799	OPTION1	BC	00000000
	OPTION2	CA	00000000
	OPTION3	88	00000000
	OPTION4	F7	00000000
	OPTION5	00	00000000
	OPTION6	32	00000000

WR : OK I : EXIT MOVE : ◀ ▶
EDIT : ▲▼

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SPECIFICATIONS

General

Power	: 110~240V, 50~60Hz
Power consumption	: Approx. 12 watts(Energy Saving mode : 3 watts)
Video Head system	: Rotary 2heads, helical scanning system (2HD MODEL) Double azimuth 4 heads, helical scanning system (4HD Mono, 4HD Hi-Fi Model)
Tape speed	: 23.39 mm/sec (SP mode)11.69 mm/sec(LP mode)
Tape format	: Tape width 1/2" (12.7 mm high density VHS tape)
Maximum recording time	: 4 hours in SP mode/8 hours in LP mode (with E-240 tape)
Rewind time	: Approx. 150 sec. (with E-180 tape)
Dimensions (W X H X D)	: 360 x 94.5 x 270 mm
Weight	: 9.0 lbs. (4.0 kg)
Operating temperature	: 41°F-95°F (5°C-35°C)
Operating humidity	: Less than 80%
Timer	: 24 hours display type

Video

Television system	: CCIR standard (625 lines, 50 fields) PAL, SECAM colour signal
Recording format	: PAL (B/G, I/I), SECAM (D/K)
Input level	: VIDEO IN (SCART, RCA type) 1.0 Vp-p, 75 ohm, unbalanced
Output level	: VIDEO OUT (SCART type) 1.0 Vp-p, 75 ohm, unbalanced
Signal to noise ratio	: More than 43 dBm

Audio

Input level	: AUDIO IN (SCART, RCA type) Scart type : -6.0dBm, more than 10kΩ RCA type : -6.0 dBm, more than 47kΩ
Output level	: AUDIO OUT (SCART, RCA type) Scart type : -6.0dBm, less than 1kΩ RCA type : -6.0 dBm, less than 1kΩ
Audio track	Mono track & Hi-Fi track
Audio signal to noise ratio	: Normal : More than 70 dBm(JIS A filter)
Audio dynamic range	: Hi-Fi audio : More than 85 dBm(JIS A filter)

• Design and specifications are subject to change without notice.

:Hi-Fi Model only

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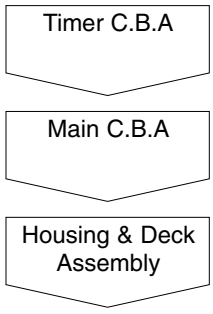
SECTION 2 CABINET & MAIN CHASSIS
SERVICE METHOD

Electrical Part

(1) Re-assembly Flow for service like Fig. 2-1



(2) To check and replace Electrical parts

① Re-assemble the unit according to No.1) Re-assembly Flow.
② Place the unit like Fig. 2-1
③ Check and replace Electrical parts.

NOTE :

① Insert Video Cassette Tape inversely like Fig. 2-1 to check and replace defective parts.
② In disassembling and reassembling, be careful not to damaged CST switch.

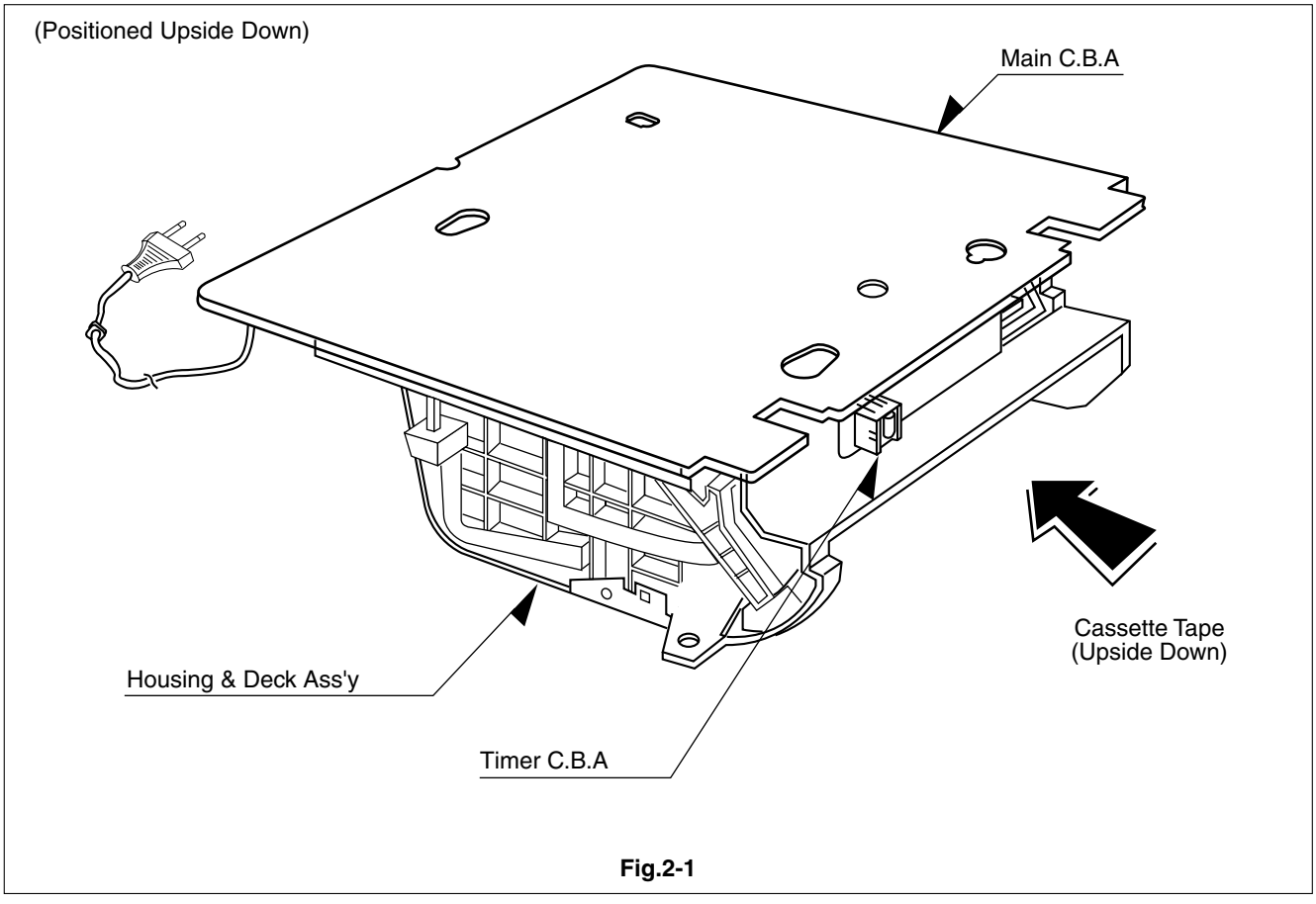


Fig.2-1

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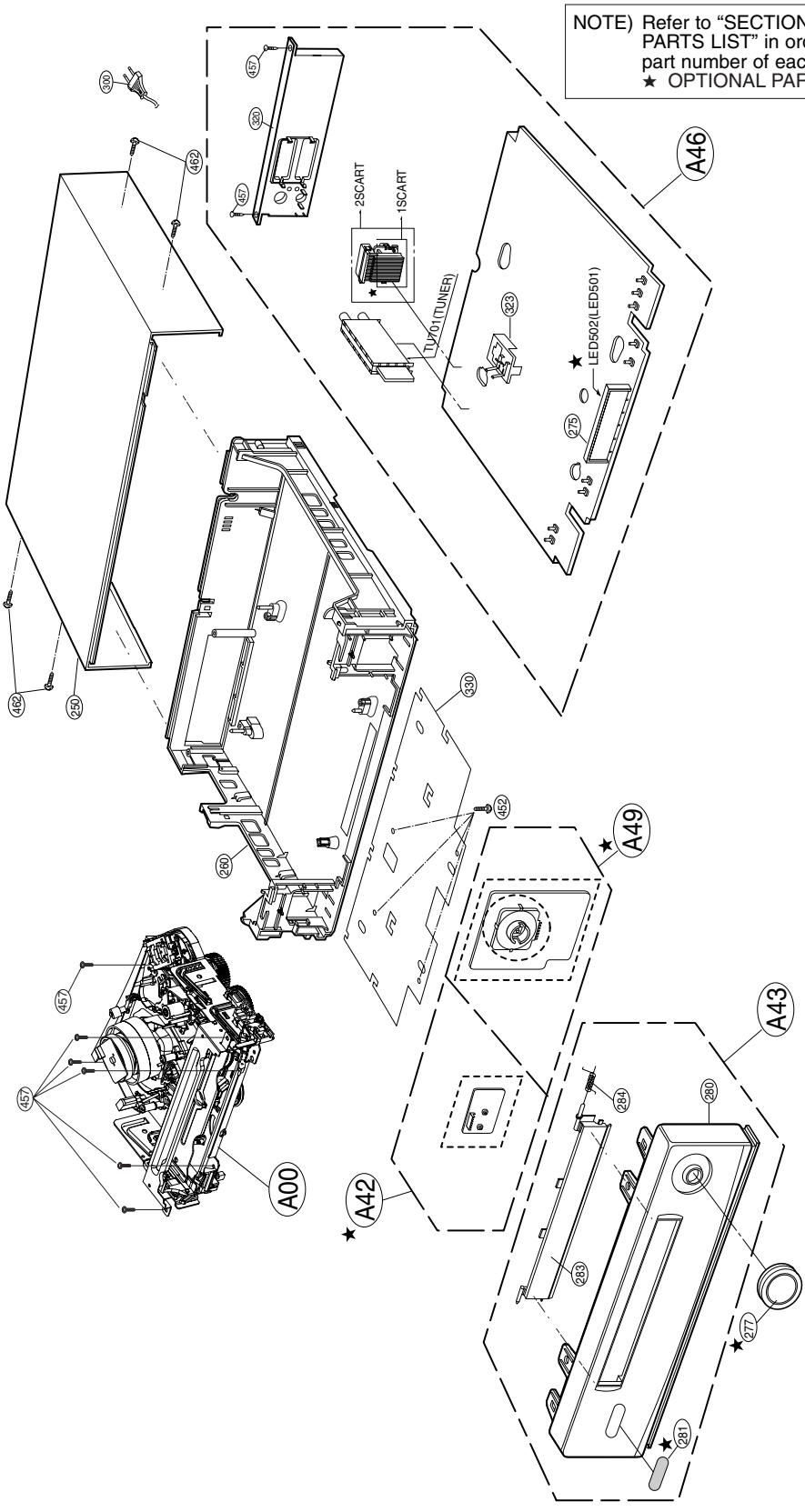
EXPLODED VIEWS

1. Cabinet and Main Frame Section

NOTE) Refer to “SECTION 5 REPLACEMENT PARTS LIST” in order to look for the part number of each part.
★ OPTIONAL PARTS



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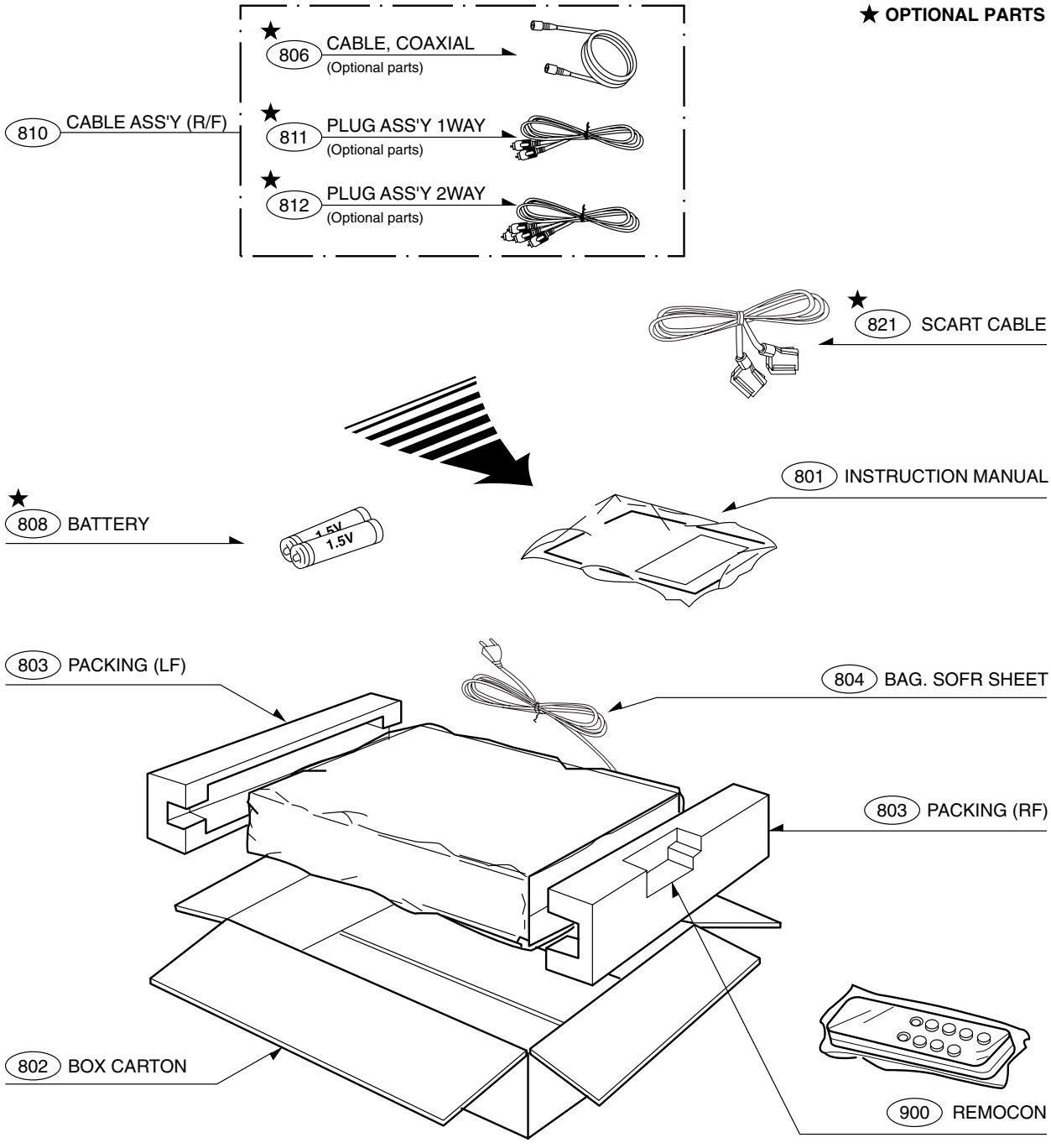
2.Packing Accessory Section

NOTE) Refer to “SECTION REPLACEMENT PARTS LIST in order to look for the part number of each part.



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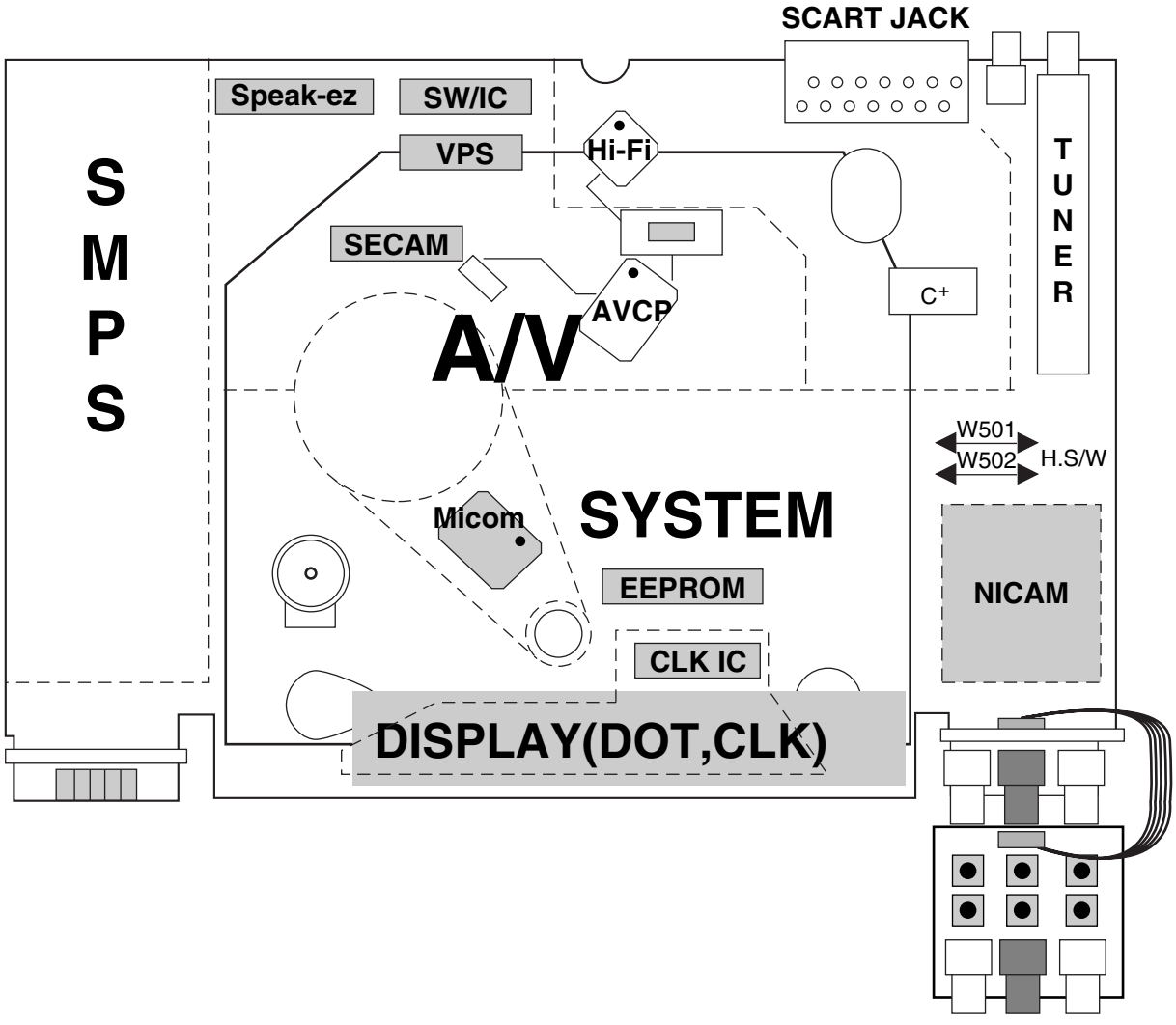
SECTION 3 ELECTRICAL

ELECTRICAL ADJUSTMENT POINTS ARRANGEMENT

: Measurement point
: Adjustment point



(COMPONENT SIDE)

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ELECTRICAL ADJUSTMENT PROCEDURES

1. Servo Adjustment

1) PG Adjustment

• Test Equipment

a) OSCILLOSCOPE
b) PAL TEST TAPE (VHS SP)
c) JIG REMOCON (AUTO PG SETTING)

• Adjustment And Specification

MODE	MEASUREMENT POINT	ADJUSTMENT POINT	SPECIFICATION
PLAY	V.Out H/SW(W501, W502)		6.5 ± 0.5H

- **Adjustment Procedure**

a) Insert the PAL SP Test Tape and play.
Note - Adjust the distance of X, pressing the Tracking(+) or Tracking(-) when the “ATR” is blink after the PAL SP Test Tape is inserted.

b) Press the Auto PG KEY on JIG Remocon(1’st) or Press “REC” key on set and “CLEAR” key on Remocon.(Then check the blink “TRK OK” on CLK/LED-TRK is a Initial)

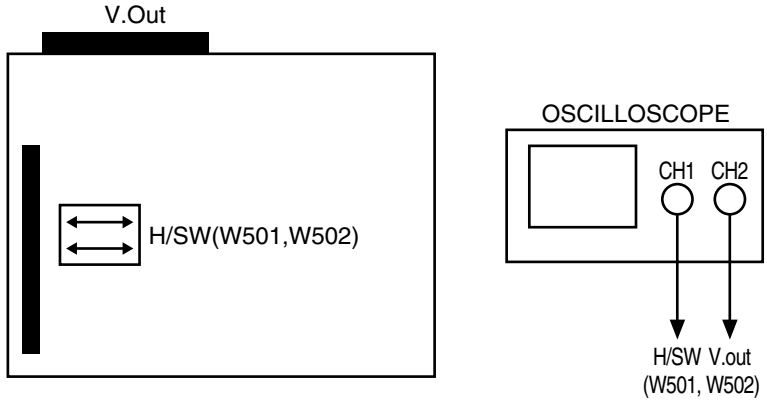
c) Press the Auto PG Key on JIG Remocon again (2’nd) or press “REC” key on set and “CLEAR” key on Remocon again.(Then check the blink “PG NG > PG OK” on CLK/LED.)

- **Check the PG**

a) Connect the CH1 of the oscilloscope to the H/SW and CH2 to the Video out for the VCR.

b) Trigger the mixed Video Signal of CH2 to the CH1 H/SW(W501, W502), and then check the distance (time difference), which is from the selected A(B) Head point of the H/SW(W501, W502) signal to the starting point of the vertical synchronized signal, to 6.5H ± 0.5H (416μs, 1H=64.0μs).

- **CONNECTION**



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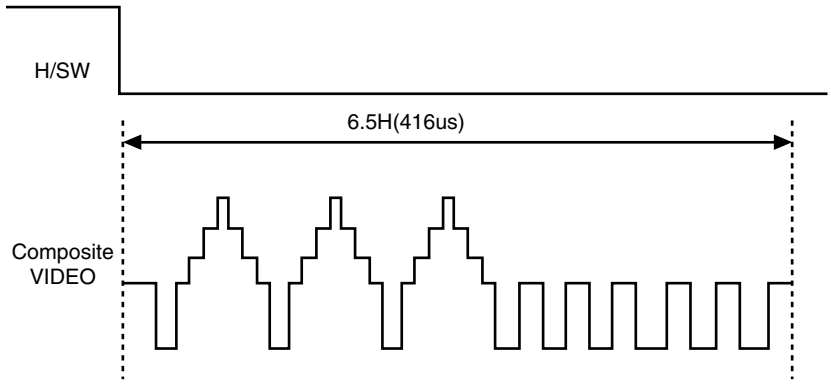
ELECTRICAL ADJUSTMENT PROCEDURES

- **WAVEFORM**



- **Attension and Reference**

a) The PG checking must do when RF Level is Maximum and SERVO system is Locking (MTR MODE)

b) V.H/SW Level is 2Vpp.

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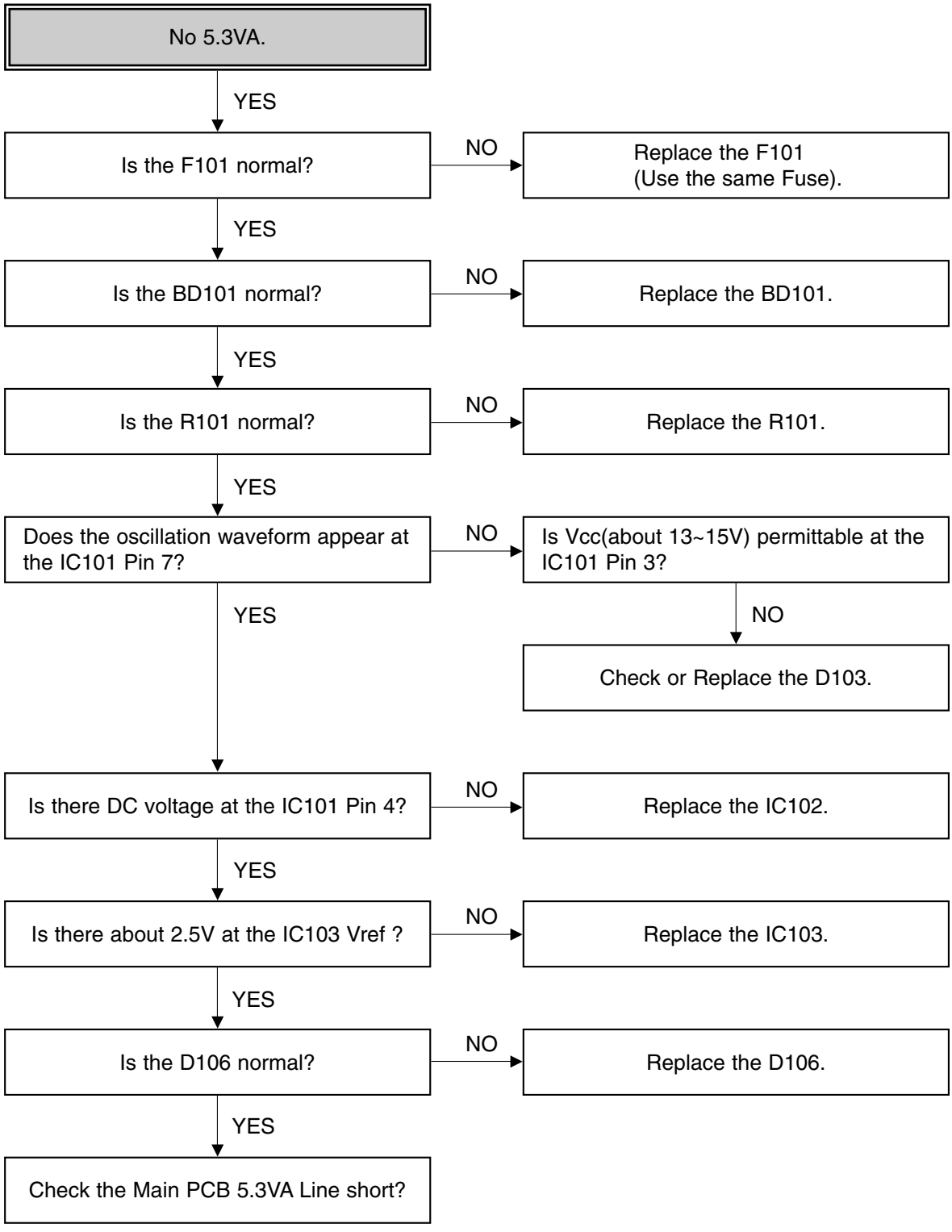
ELECTRICAL TROUBLESHOOTING GUIDE

1. Power Circuit(SMPS)

(1) No 5.3VA.



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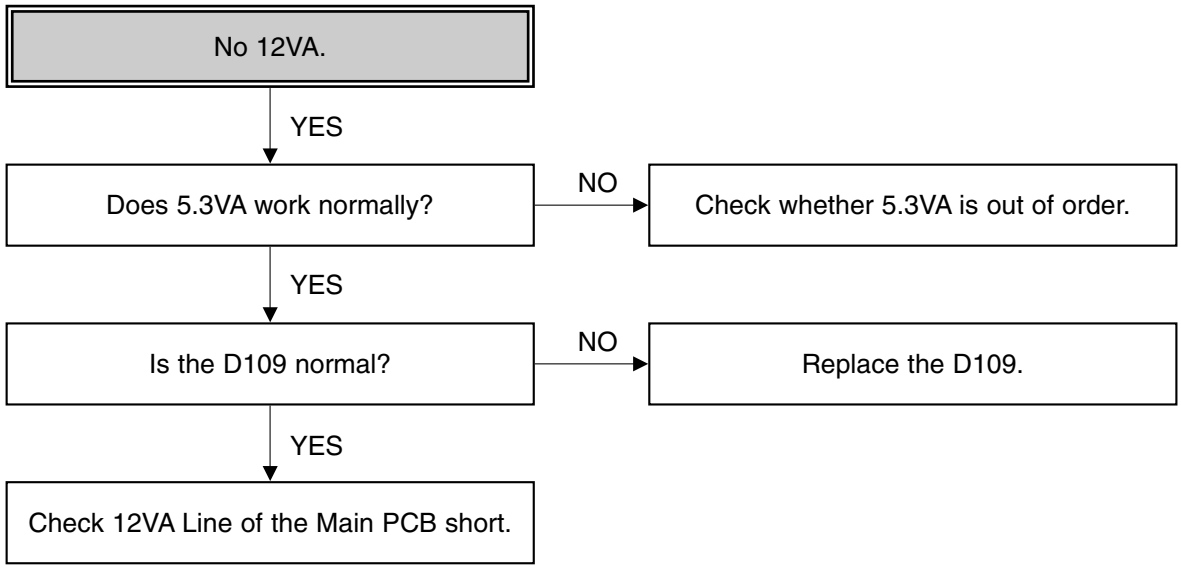
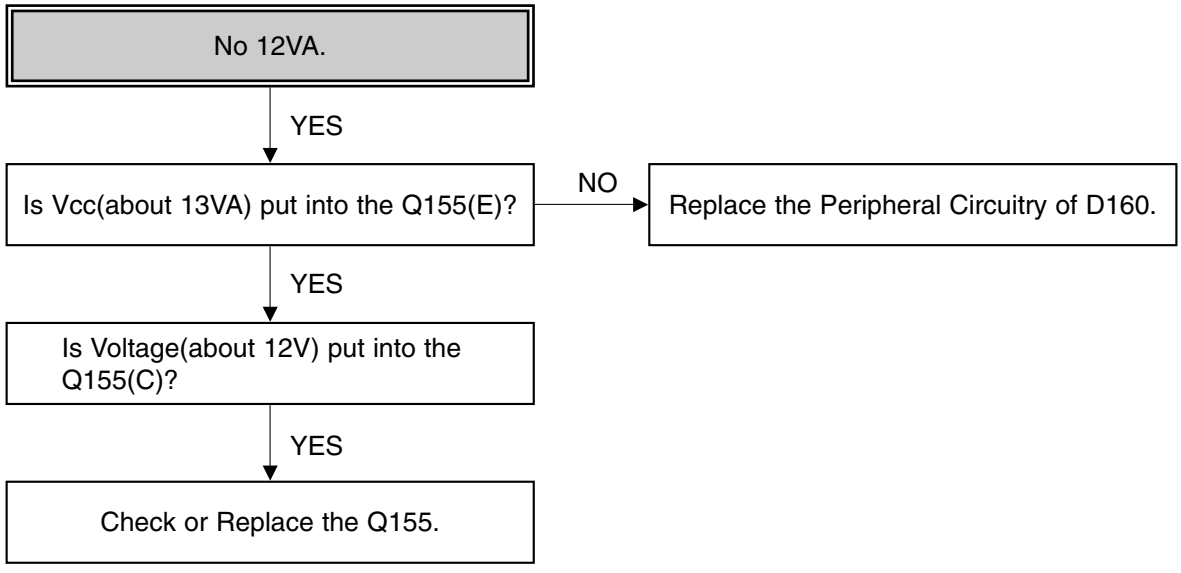
(2) No 12VA.(Capstan)



(3) No 12VA (CANAL, Buffer)



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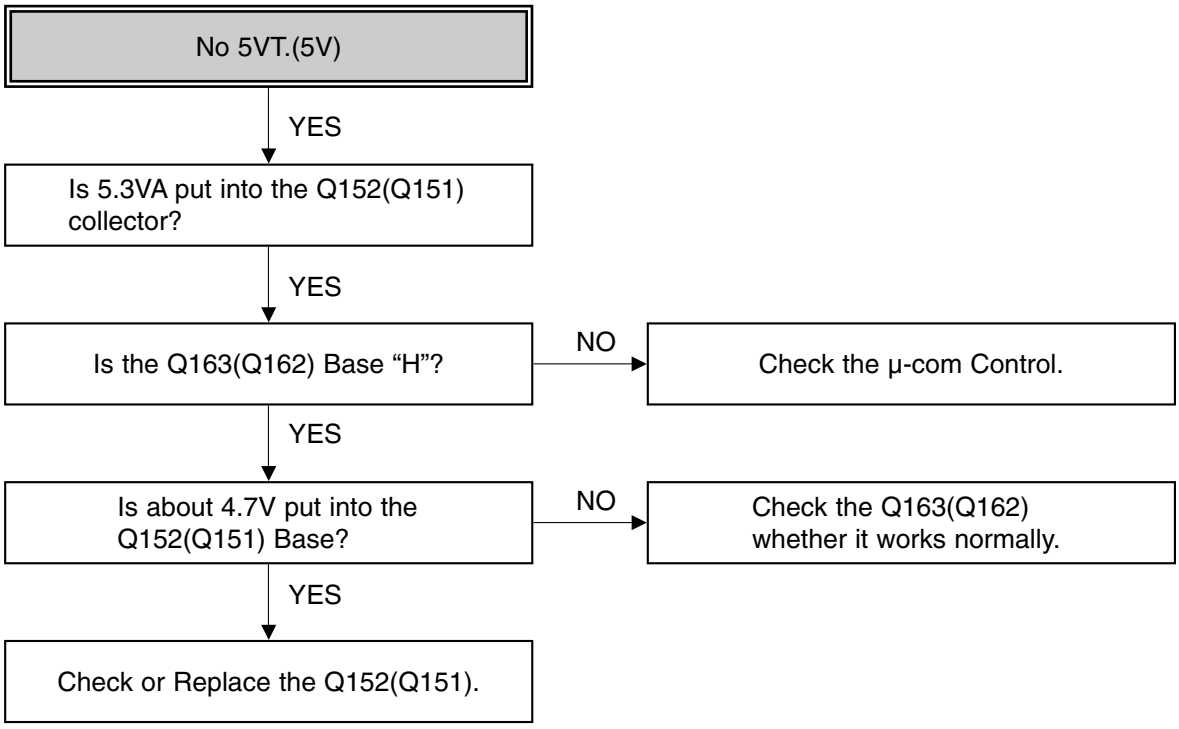
(4) No 5VT(5V)



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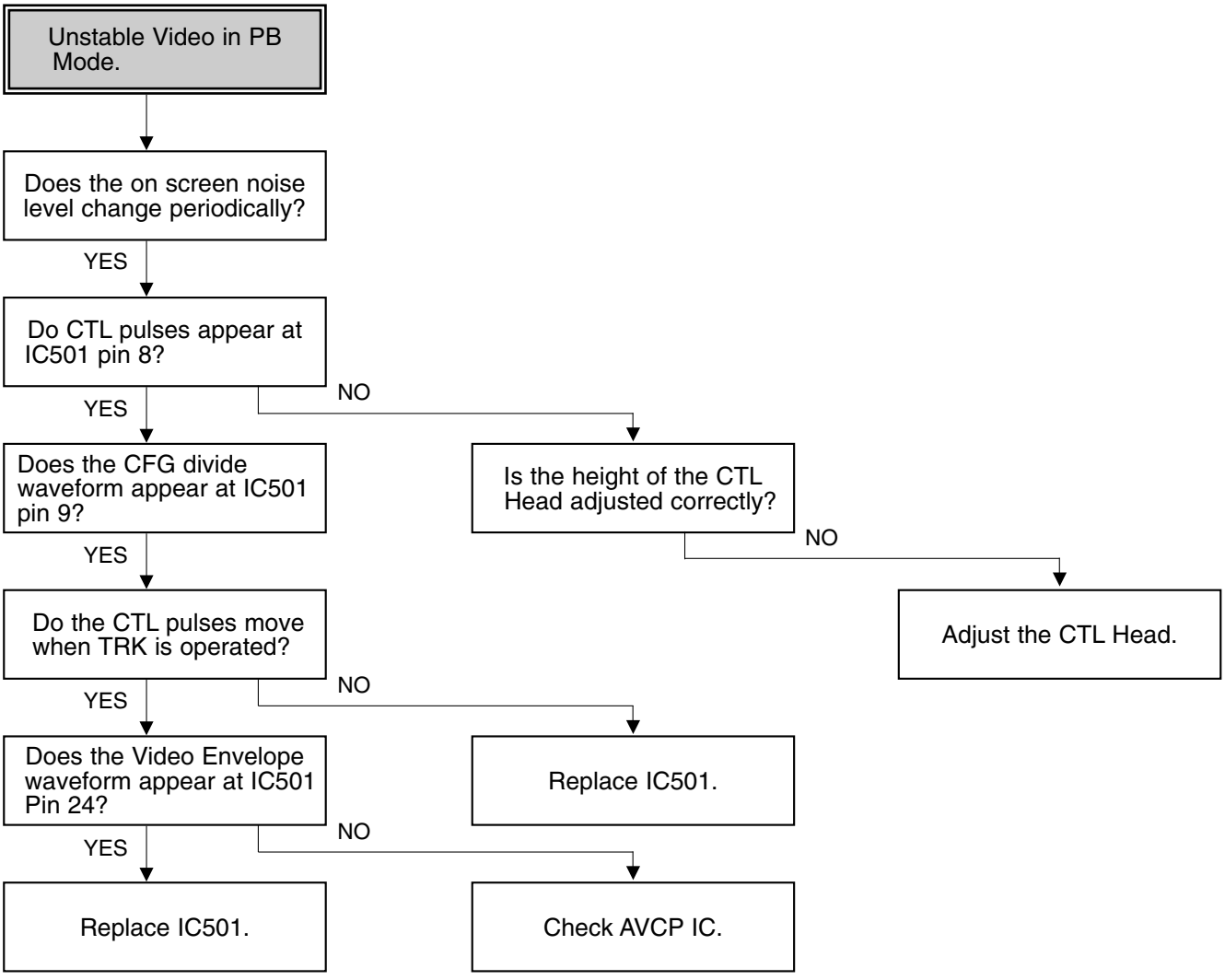
2. Servo Circuit

A.


Unstable Video in PB Mode.
Does the on screen noise level change periodically?
YES
Do CTL pulses appear at IC501 pin 8?
NO
YES
Does the CFG divide waveform appear at IC501 pin 9?
Is the height of the CTL Head adjusted correctly?
NO
Adjust the CTL Head.
YES
Do the CTL pulses move when TRK is operated?
NO
YES
Does the Video Envelope waveform appear at IC501 Pin 24?
Replace IC501.
NO
YES
Replace IC501.
Check AVCP IC.

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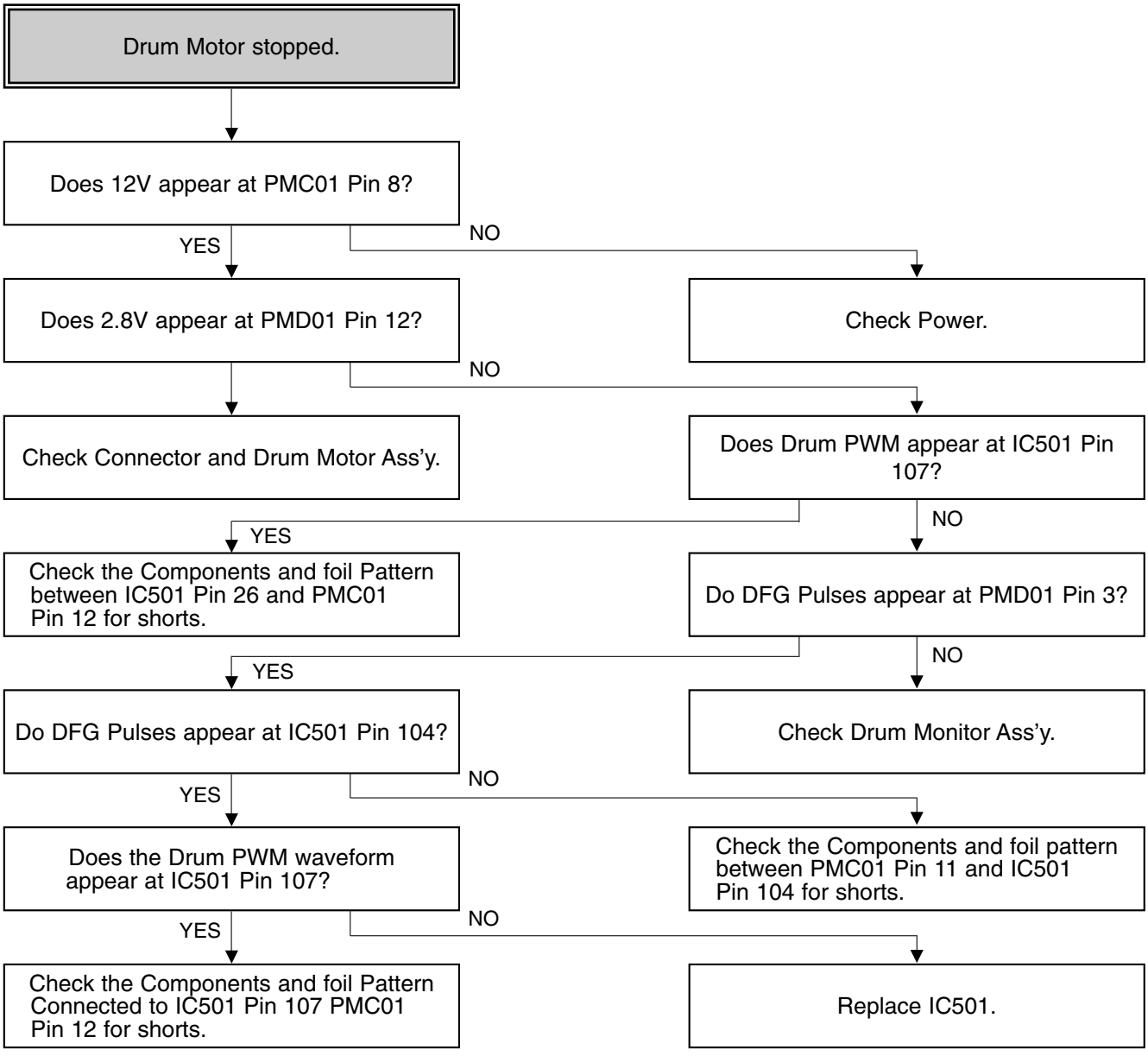
B.


Drum Motor stopped.
Does 12V appear at PMC01 Pin 8?
NO
YES
Check Power.
Does 2.8V appear at PMD01 Pin 12?
NO
Check Connector and Drum Motor Ass'y.
Does Drum PWM appear at IC501 Pin 107?
NO
YES
Check the Components and foil Pattern between IC501 Pin 26 and PMC01 Pin 12 for shorts.
Do DFG Pulses appear at PMD01 Pin 3?
NO
YES
Do DFG Pulses appear at IC501 Pin 104?
Check Drum Monitor Ass'y.
NO
YES
Does the Drum PWM waveform appear at IC501 Pin 107?
Check the Components and foil pattern between PMC01 Pin 11 and IC501 Pin 104 for shorts.
NO
YES
Check the Components and foil Pattern Connected to IC501 Pin 107 PMC01 Pin 12 for shorts.
Replace IC501.

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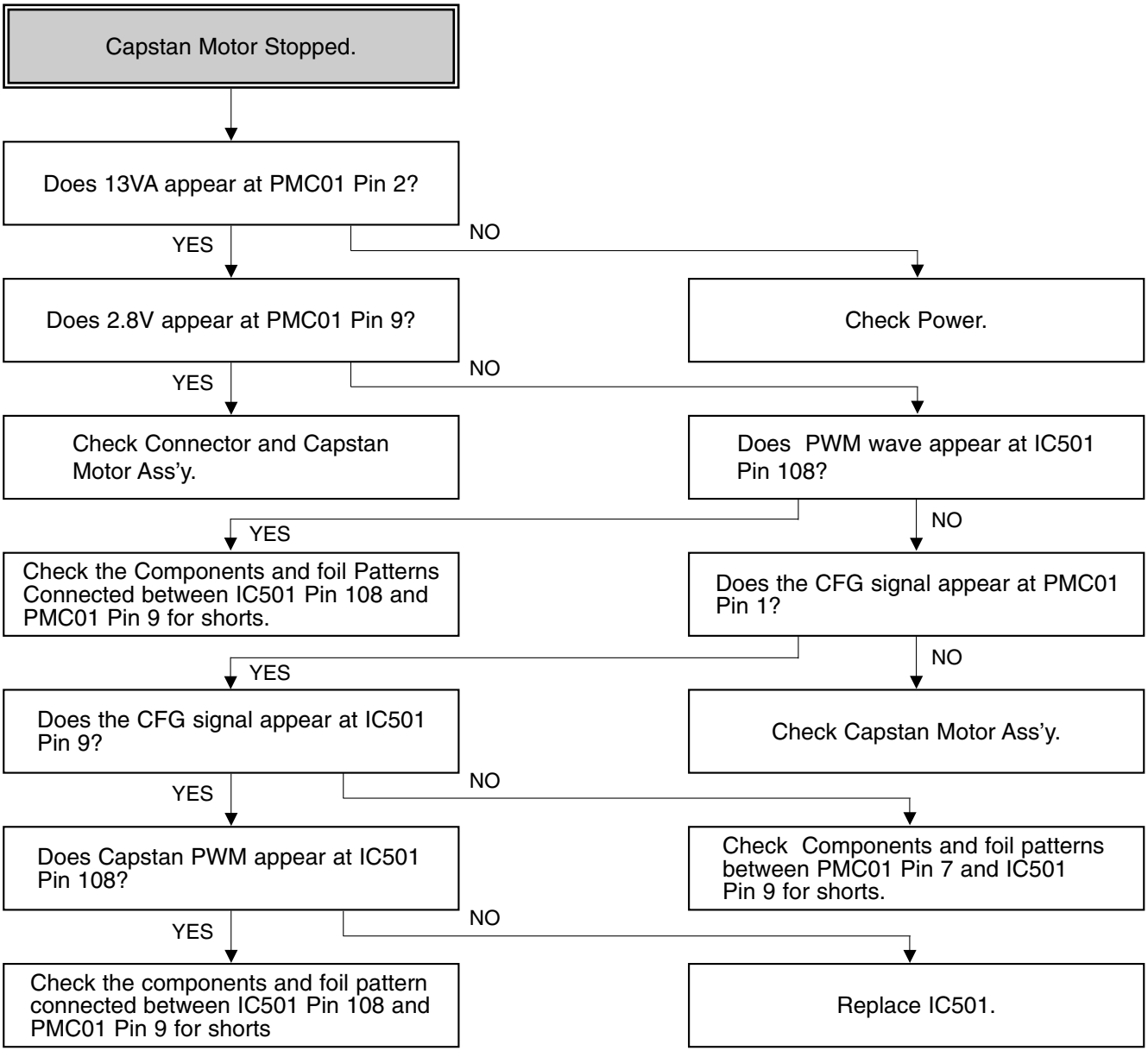
C.


Capstan Motor Stopped.
Does 13VA appear at PMC01 Pin 2?
YES
NO
Does 2.8V appear at PMC01 Pin 9?
Check Power.
YES
NO
Check Connector and Capstan Motor Ass'y.
Does PWM wave appear at IC501 Pin 108?
YES
NO
Check the Components and foil Patterns Connected between IC501 Pin 108 and PMC01 Pin 9 for shorts.
Does the CFG signal appear at PMC01 Pin 1?
YES
NO
Does the CFG signal appear at IC501 Pin 9?
Check Capstan Motor Ass'y.
YES
NO
Does Capstan PWM appear at IC501 Pin 108?
Check Components and foil patterns between PMC01 Pin 7 and IC501 Pin 9 for shorts.
YES
NO
Check the components and foil pattern connected between IC501 Pin 108 and PMC01 Pin 9 for shorts
Replace IC501.

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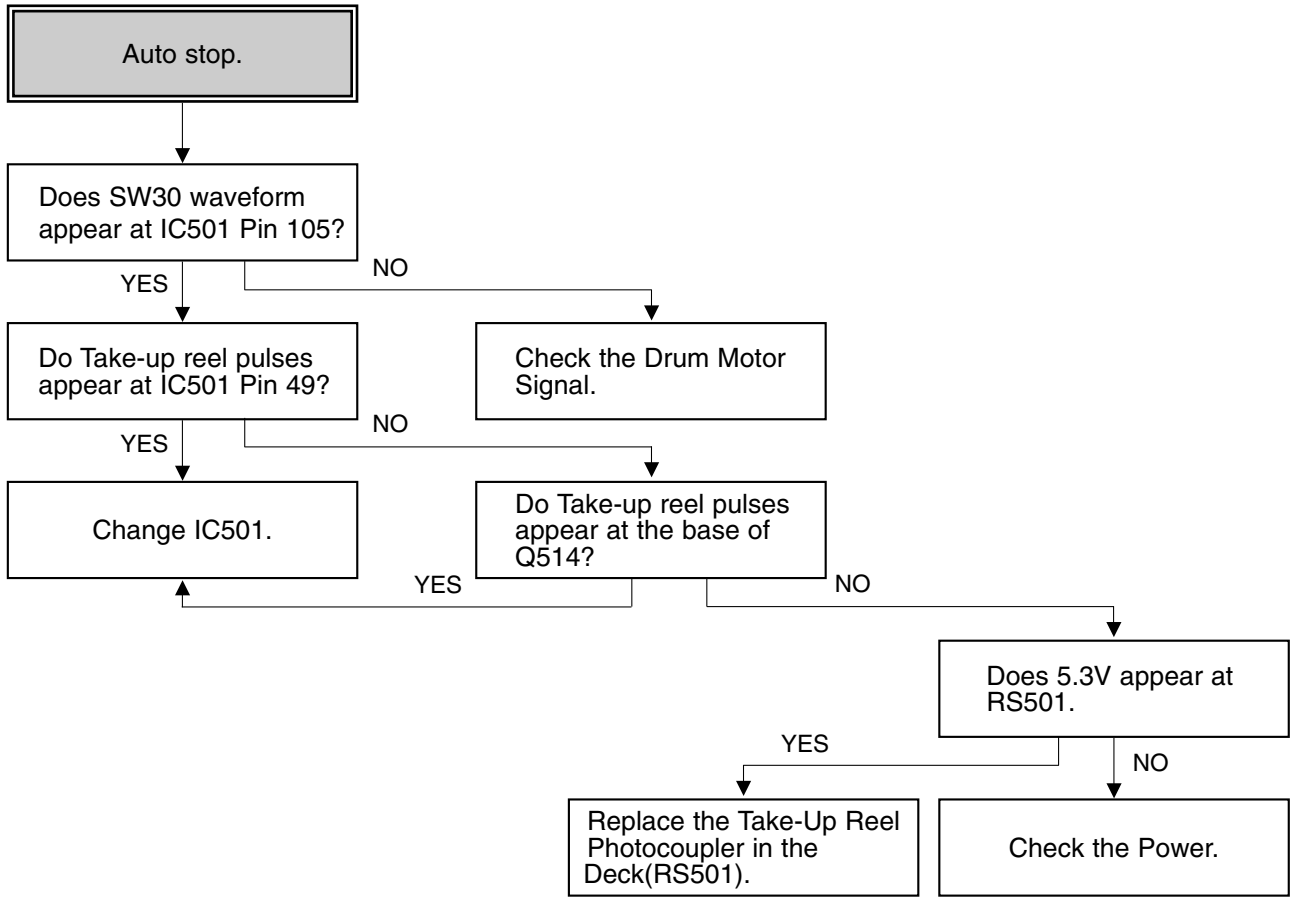
3. System & Front Panel Circuit

A.



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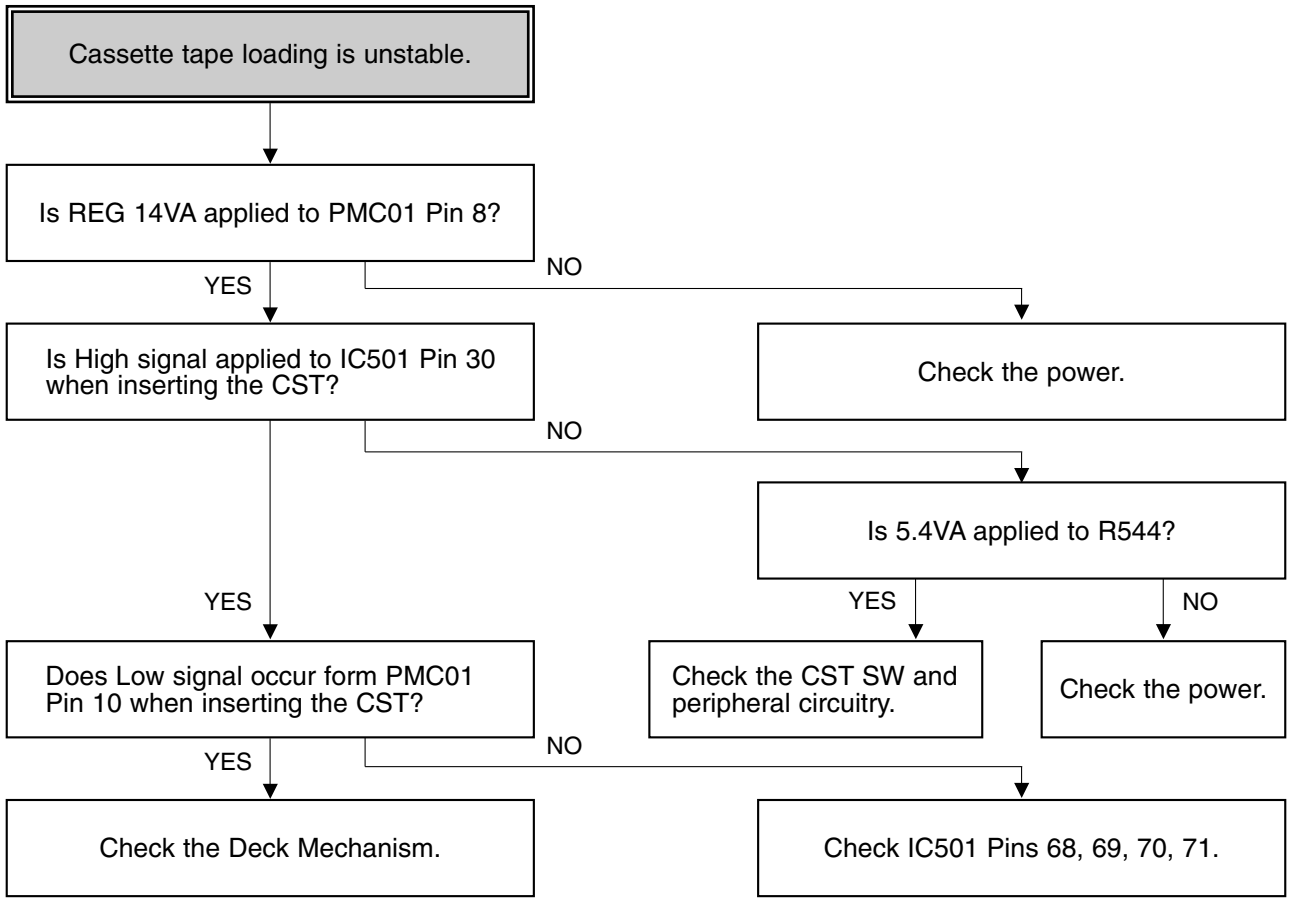
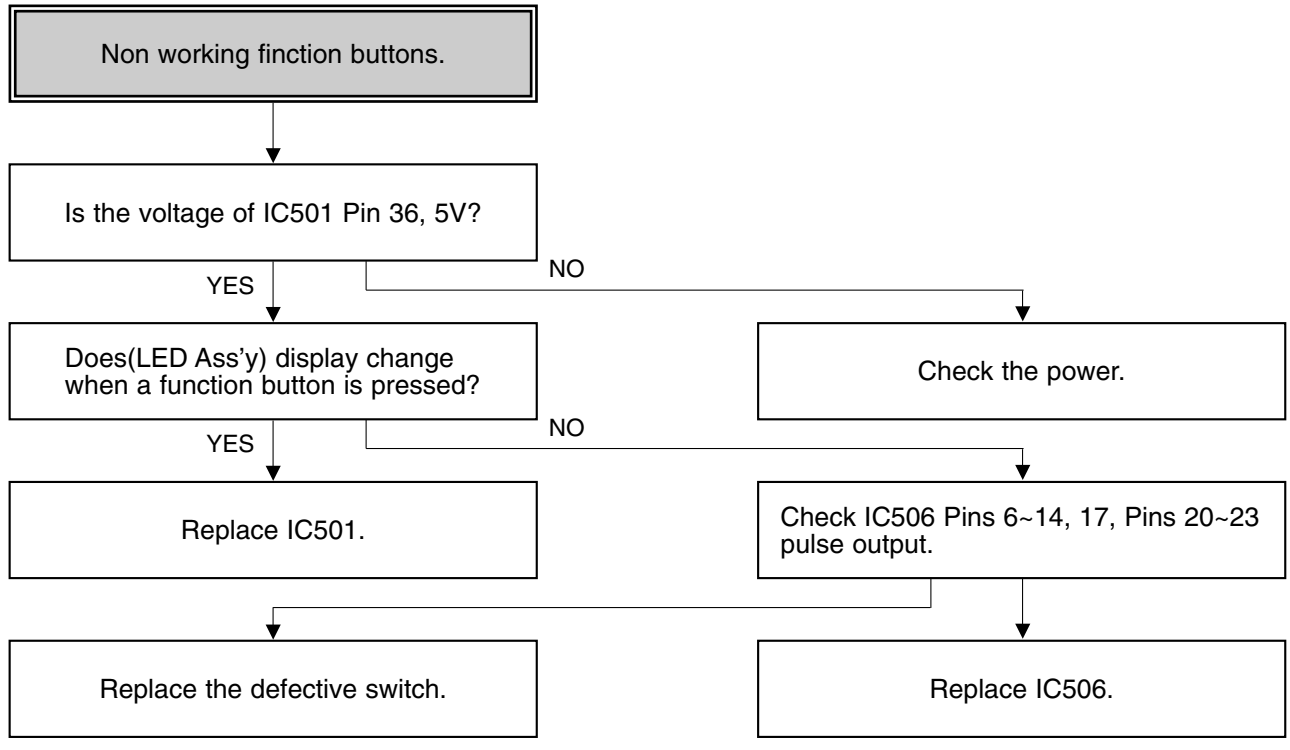
B.


Cassette tape loading is unstable.
Is REG 14VA applied to PMC01 Pin 8?
YES
NO
Is High signal applied to IC501 Pin 30 when inserting the CST?
Check the power.
NO
Is 5.4VA applied to R544?
YES
YES
NO
Does Low signal occur form PMC01 Pin 10 when inserting the CST?
Check the CST SW and peripheral circuitry.
Check the power.
NO
YES
Check the Deck Mechanism.
Check IC501 Pins 68, 69, 70, 71.

NOTE : Auto stop may also be caused by lack of lubrication,due to dried grease or oil.

C.



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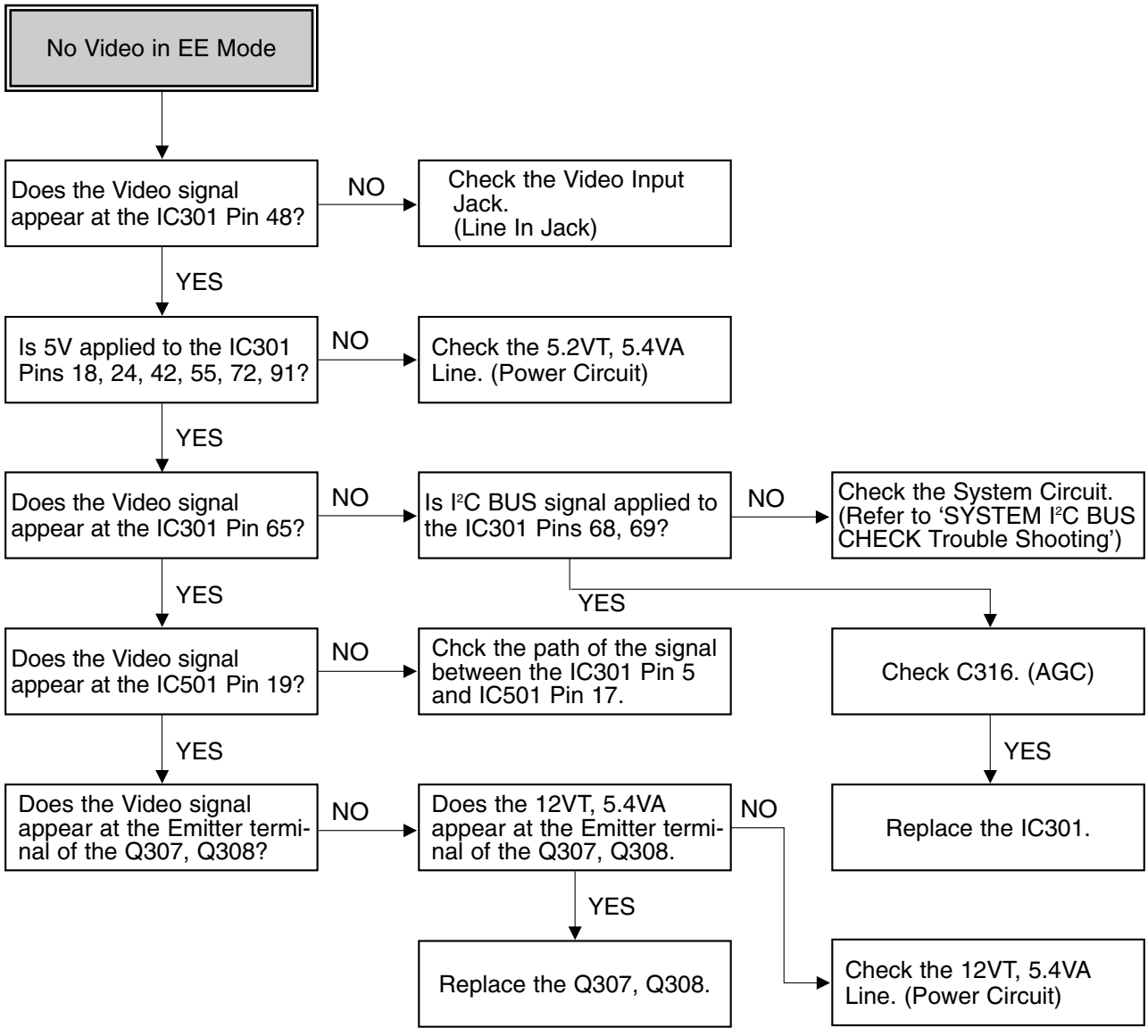
4. Y/C CIRCUIT

(1) No Video in EE Mode,


No Video in EE Mode
Does the Video signal appear at the IC301 Pin 48?
NO
Check the Video Input Jack. (Line In Jack)
YES
Is 5V applied to the IC301 Pins 18, 24, 42, 55, 72, 91?
NO
Check the 5.2VT, 5.4VA Line. (Power Circuit)
YES
Does the Video signal appear at the IC301 Pin 65?
NO
Is I²C BUS signal applied to the IC301 Pins 68, 69?
NO
Check the System Circuit. (Refer to 'SYSTEM I²C BUS CHECK Trouble Shooting')
YES
YES
Does the Video signal appear at the IC501 Pin 19?
NO
Chck the path of the signal between the IC301 Pin 5 and IC501 Pin 17.
Check C316. (AGC)
YES
YES
Does the Video signal appear at the Emitter terminal of the Q307, Q308?
NO
Does the 12VT, 5.4VA appear at the Emitter terminal of the Q307, Q308.
NO
Replace the IC301.
YES
Replace the Q307, Q308.
Check the 12VT, 5.4VA Line. (Power Circuit)

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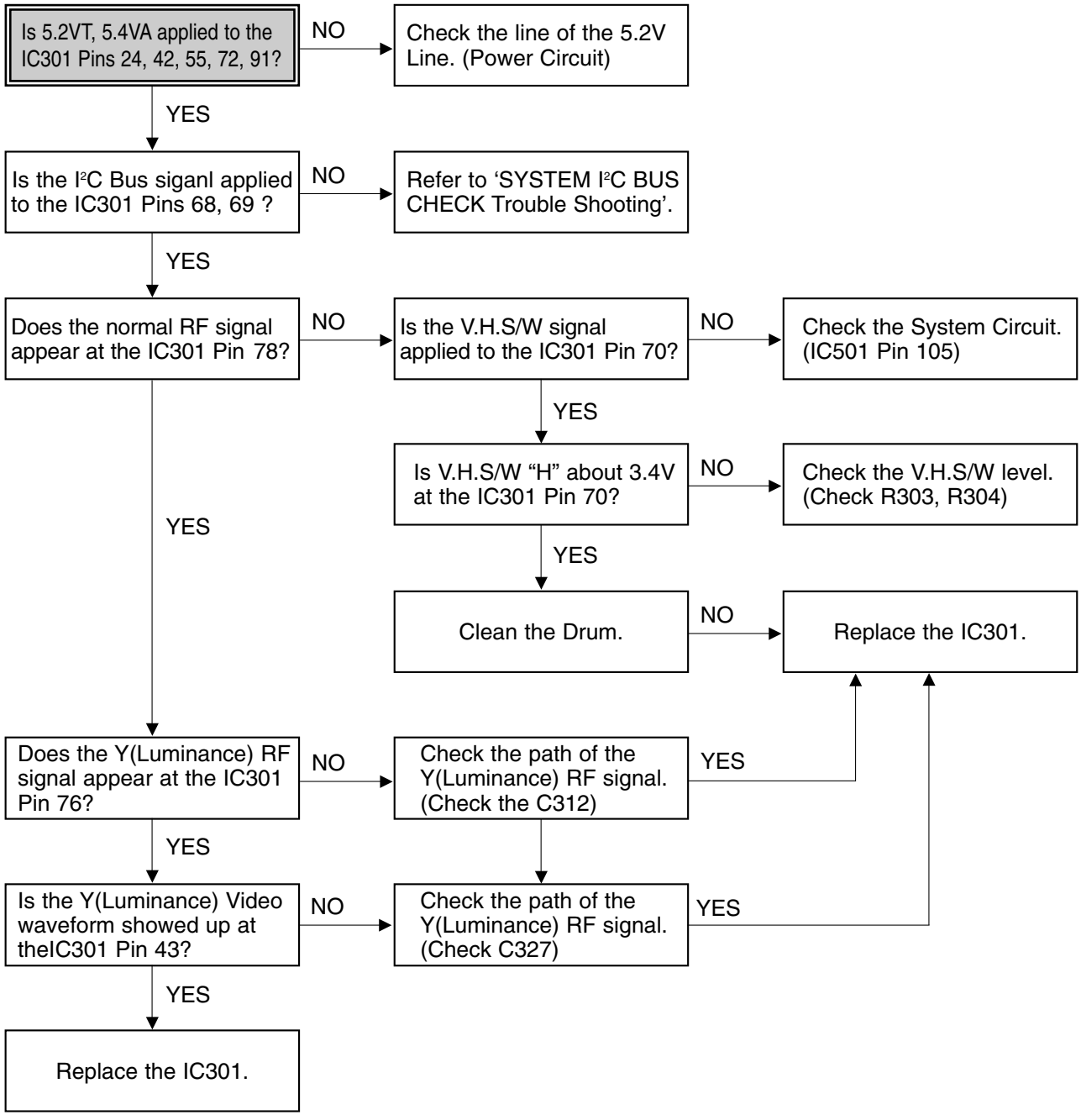
(2) When the Y(Luminance) signal doesn't appear on the screen in PB Mode,


Is 5.2VT, 5.4VA applied to the IC301 Pins 24, 42, 55, 72, 91?
NO
Check the line of the 5.2V Line. (Power Circuit)
YES
Is the I²C Bus siganl applied to the IC301 Pins 68, 69 ?
NO
Refer to 'SYSTEM I²C BUS CHECK Trouble Shooting'.
YES
Does the normal RF signal appear at the IC301 Pin 78?
NO
Is the V.H.S/W signal applied to the IC301 Pin 70?
NO
Check the System Circuit. (IC501 Pin 105)
YES
Is V.H.S/W "H" about 3.4V at the IC301 Pin 70?
NO
Check the V.H.S/W level. (Check R303, R304)
YES
YES
Clean the Drum.
NO
Replace the IC301.
Does the Y(Luminance) RF signal appear at the IC301 Pin 76?
NO
Check the path of the Y(Luminance) RF signal. (Check the C312)
YES
YES
Is the Y(Luminance) Video waveform showed up at theIC301 Pin 43?
NO
Check the path of the Y(Luminance) RF signal. (Check C327)
YES
YES
Replace the IC301.

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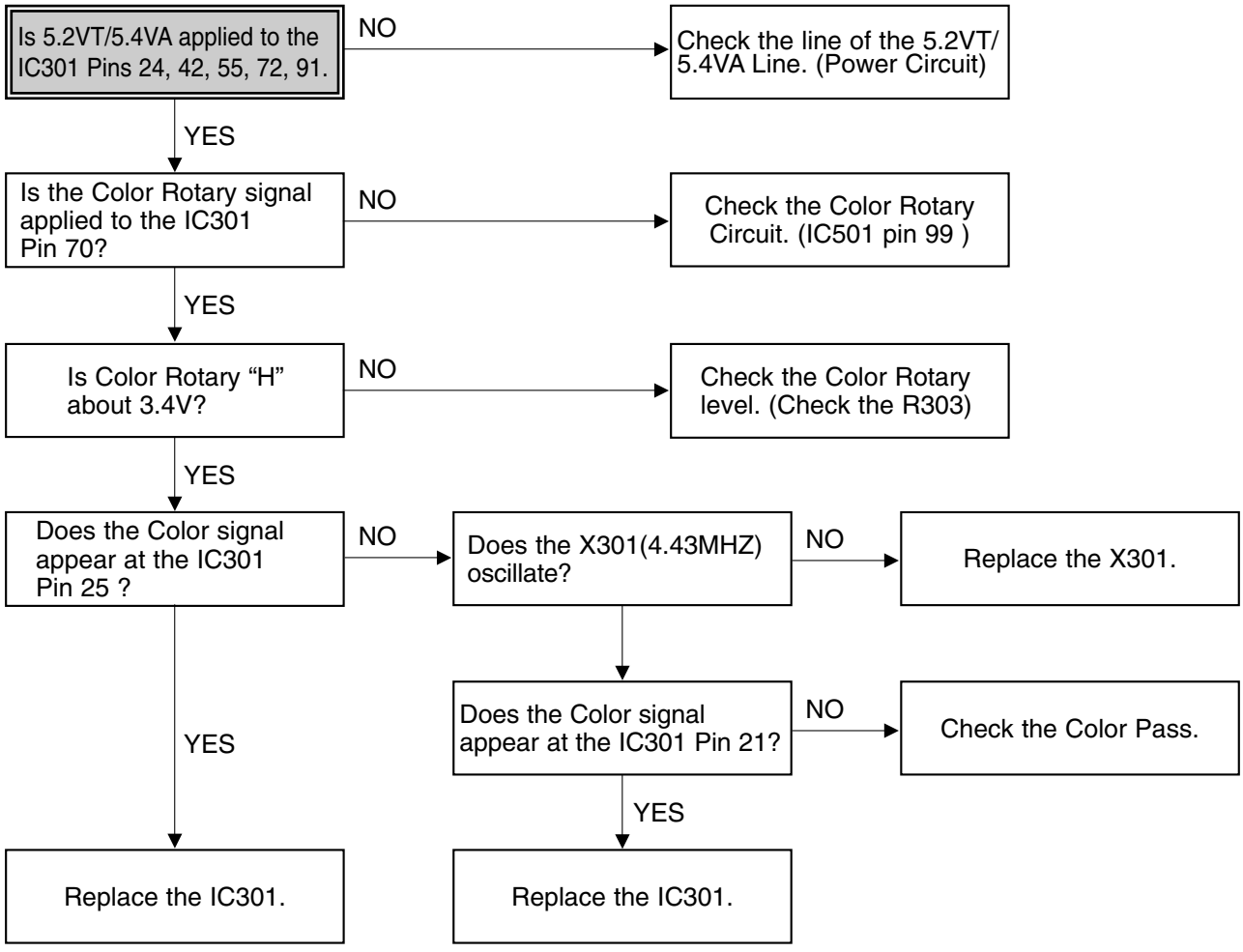
(3) When the C(Color) signal doesn't appear on the screen in PB Mode,


Is 5.2VT/5.4VA applied to the IC301 Pins 24, 42, 55, 72, 91.
NO
Check the line of the 5.2VT/ 5.4VA Line. (Power Circuit)
YES
Is the Color Rotary signal applied to the IC301 Pin 70?
NO
Check the Color Rotary Circuit. (IC501 pin 99)
YES
Is Color Rotary "H" about 3.4V?
NO
Check the Color Rotary level. (Check the R303)
YES
Does the Color signal appear at the IC301 Pin 25 ?
NO
Does the X301(4.43MHZ) oscillate?
NO
Replace the X301.
YES
Does the Color signal appear at the IC301 Pin 21?
NO
Check the Color Pass.
YES
Replace the IC301.
Replace the IC301.

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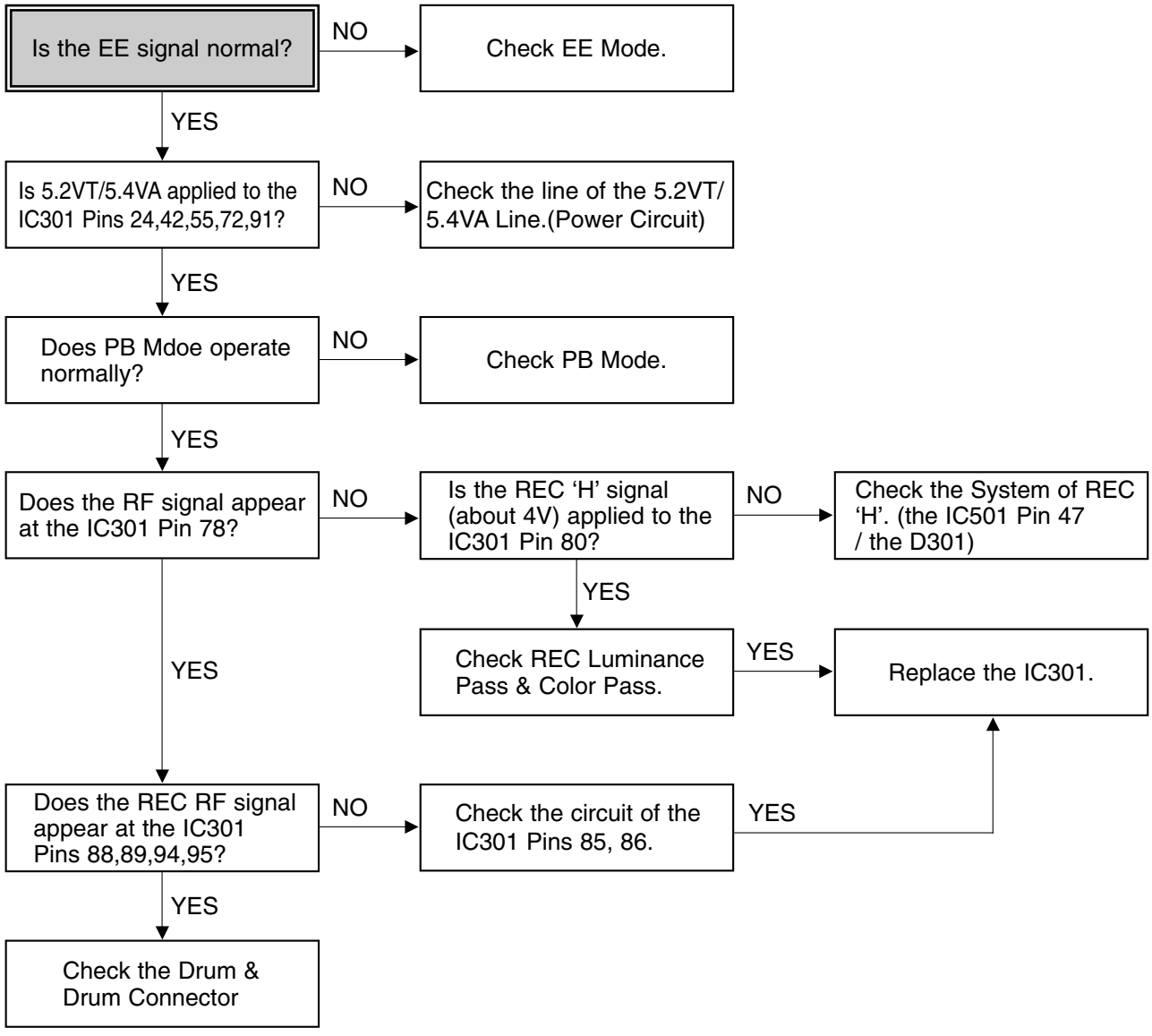
(4) When the Video signal doesn't appear on the screen in REC Mode,


Is the EE signal normal?
NO
Check EE Mode.
YES
Is 5.2VT/5.4VA applied to the IC301 Pins 24,42,55,72,91?
NO
Check the line of the 5.2VT/ 5.4VA Line.(Power Circuit)
YES
Does PB Mdoe operate normally?
NO
Check PB Mode.
YES
Does the RF signal appear at the IC301 Pin 78?
NO
Is the REC 'H' signal (about 4V) applied to the IC301 Pin 80?
NO
Check the System of REC 'H'. (the IC501 Pin 47 / the D301)
YES
Check REC Luminance Pass & Color Pass.
YES
Replace the IC301.
YES
Does the REC RF signal appear at the IC301 Pins 88,89,94,95?
NO
Check the circuit of the IC301 Pins 85, 86.
YES
YES
Check the Drum & Drum Connector

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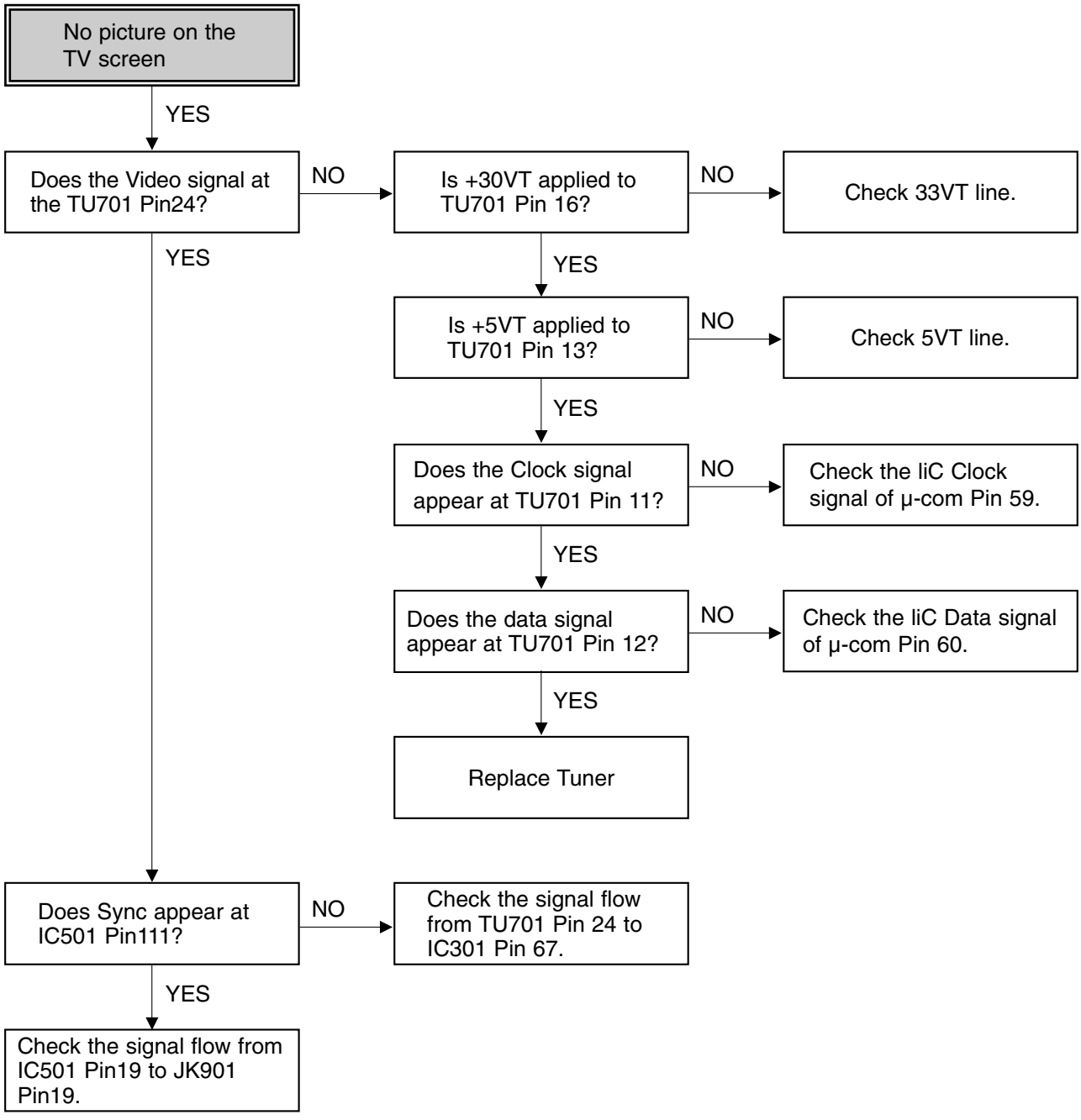
5. Tuner/IF circuit

(1) No picture on the TV screen


No picture on the TV screen
YES
Does the Video signal at the TU701 Pin24?
NO
Is +30VT applied to TU701 Pin 16?
NO
Check 33VT line.
YES
YES
Is +5VT applied to TU701 Pin 13?
NO
Check 5VT line.
YES
Does the Clock signal appear at TU701 Pin 11?
NO
Check the IiC Clock signal of µ-com Pin 59.
YES
Does the data signal appear at TU701 Pin 12?
NO
Check the IiC Data signal of µ-com Pin 60.
YES
Replace Tuner
Does Sync appear at IC501 Pin111?
NO
Check the signal flow from TU701 Pin 24 to IC301 Pin 67.
YES
Check the signal flow from IC501 Pin19 to JK901 Pin19.

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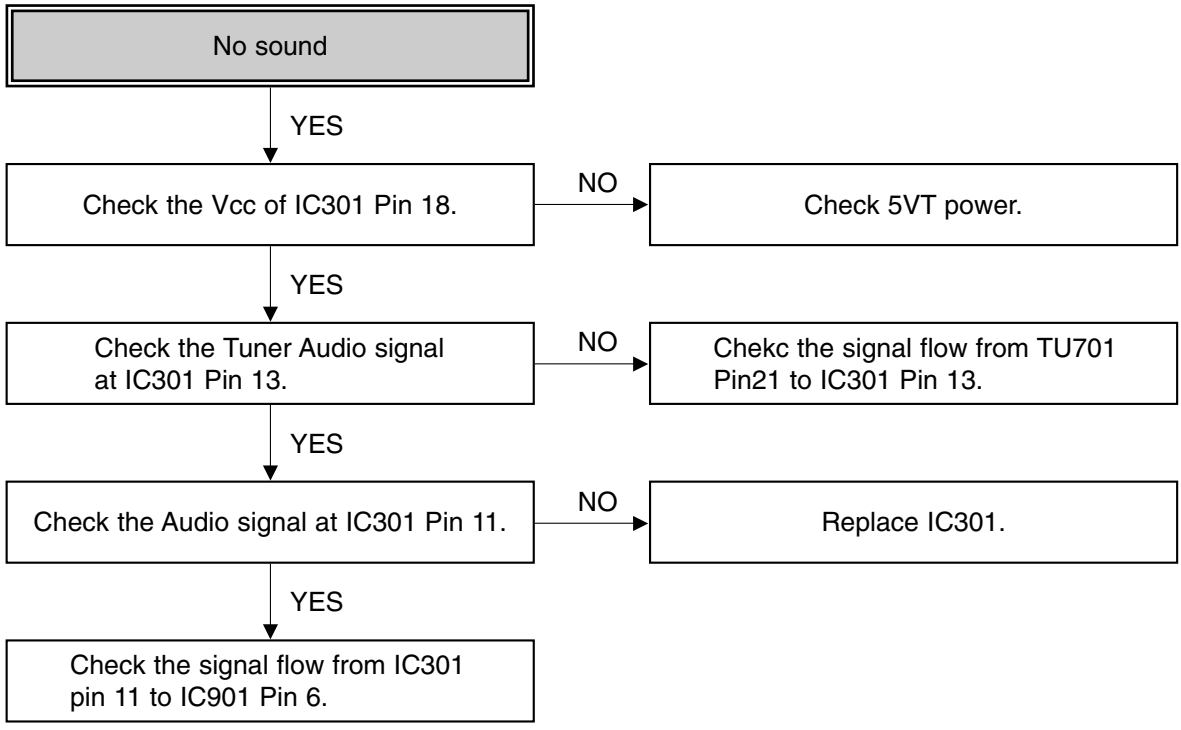
(2) No sound (Mono Model)


No sound
YES
Check the Vcc of IC301 Pin 18.
NO
Check 5VT power.
YES
Check the Tuner Audio signal at IC301 Pin 13.
NO
Chekc the signal flow from TU701 Pin21 to IC301 Pin 13.
YES
Check the Audio signal at IC301 Pin 11.
NO
Replace IC301.
YES
Check the signal flow from IC301 pin 11 to IC901 Pin 6.

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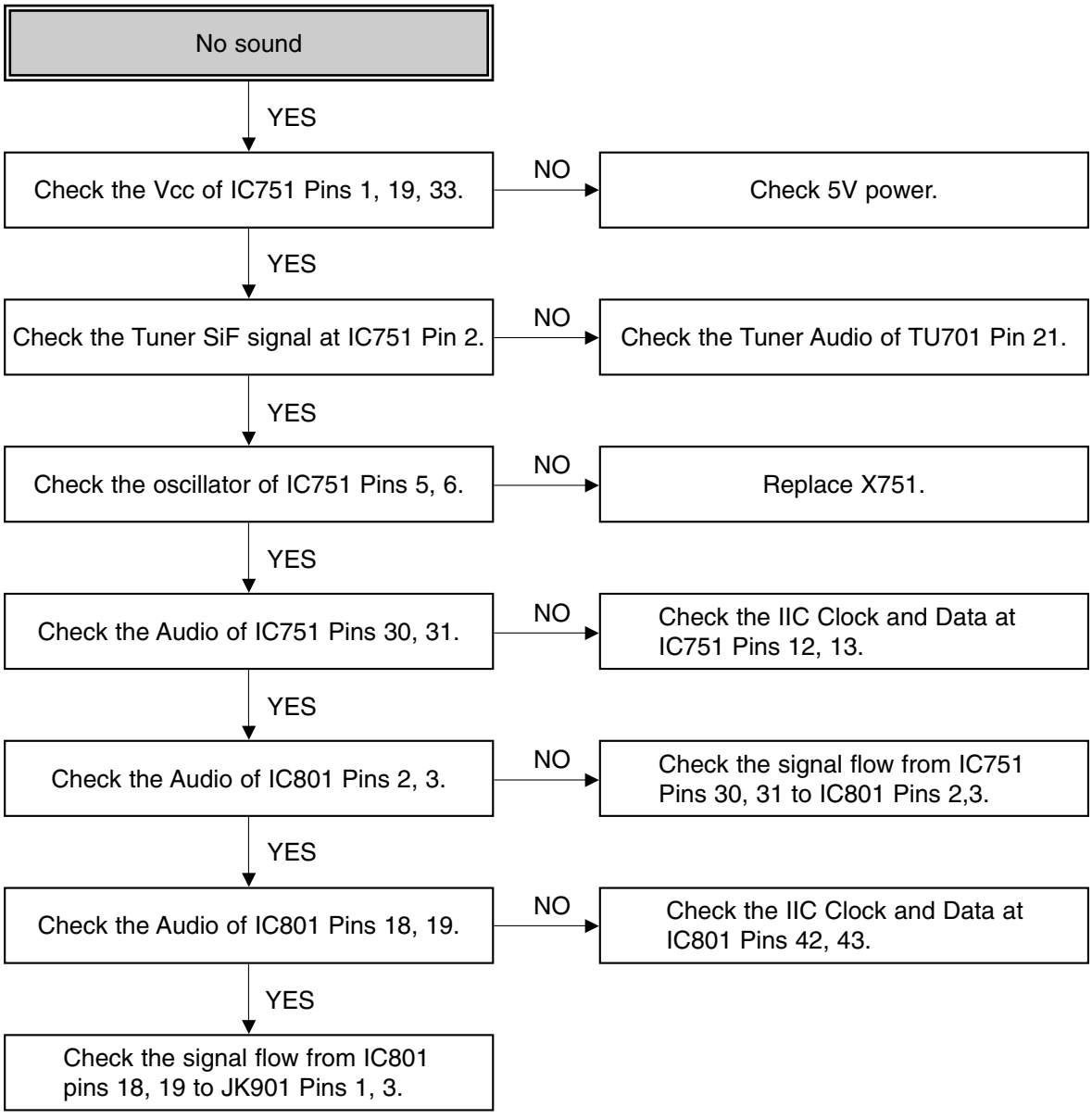
(3) No sound (Hi-Fi Model)


No sound
YES
Check the Vcc of IC751 Pins 1, 19, 33.
NO
Check 5V power.
YES
Check the Tuner SiF signal at IC751 Pin 2.
NO
Check the Tuner Audio of TU701 Pin 21.
YES
Check the oscillator of IC751 Pins 5, 6.
NO
Replace X751.
YES
Check the Audio of IC751 Pins 30, 31.
NO
Check the IIC Clock and Data at IC751 Pins 12, 13.
YES
Check the Audio of IC801 Pins 2, 3.
NO
Check the signal flow from IC751 Pins 30, 31 to IC801 Pins 2,3.
YES
Check the Audio of IC801 Pins 18, 19.
NO
Check the IIC Clock and Data at IC801 Pins 42, 43.
YES
Check the signal flow from IC801 pins 18, 19 to JK901 Pins 1, 3.

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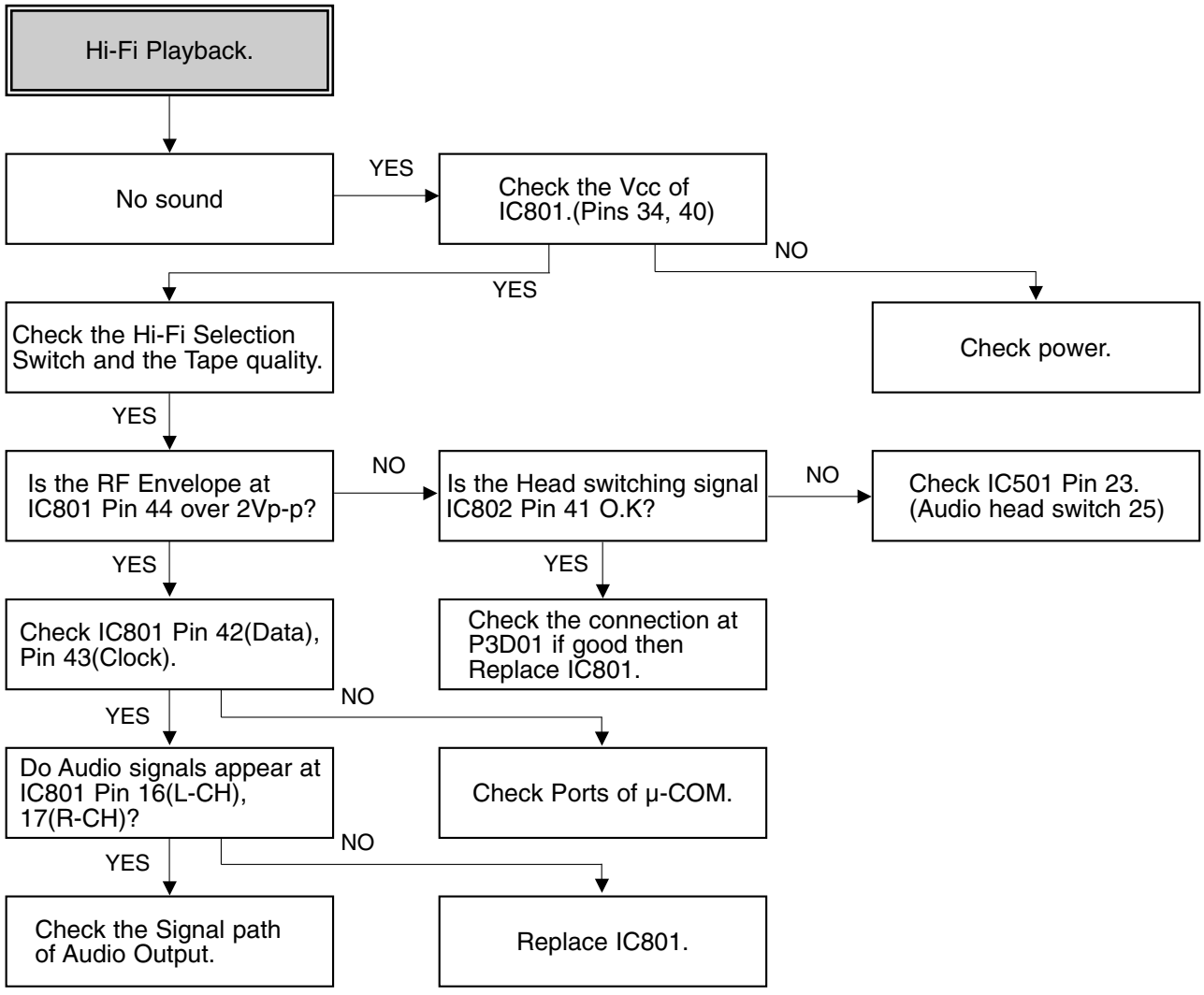
6. Hi-Fi Circuit (Hi-Fi Model)

A.



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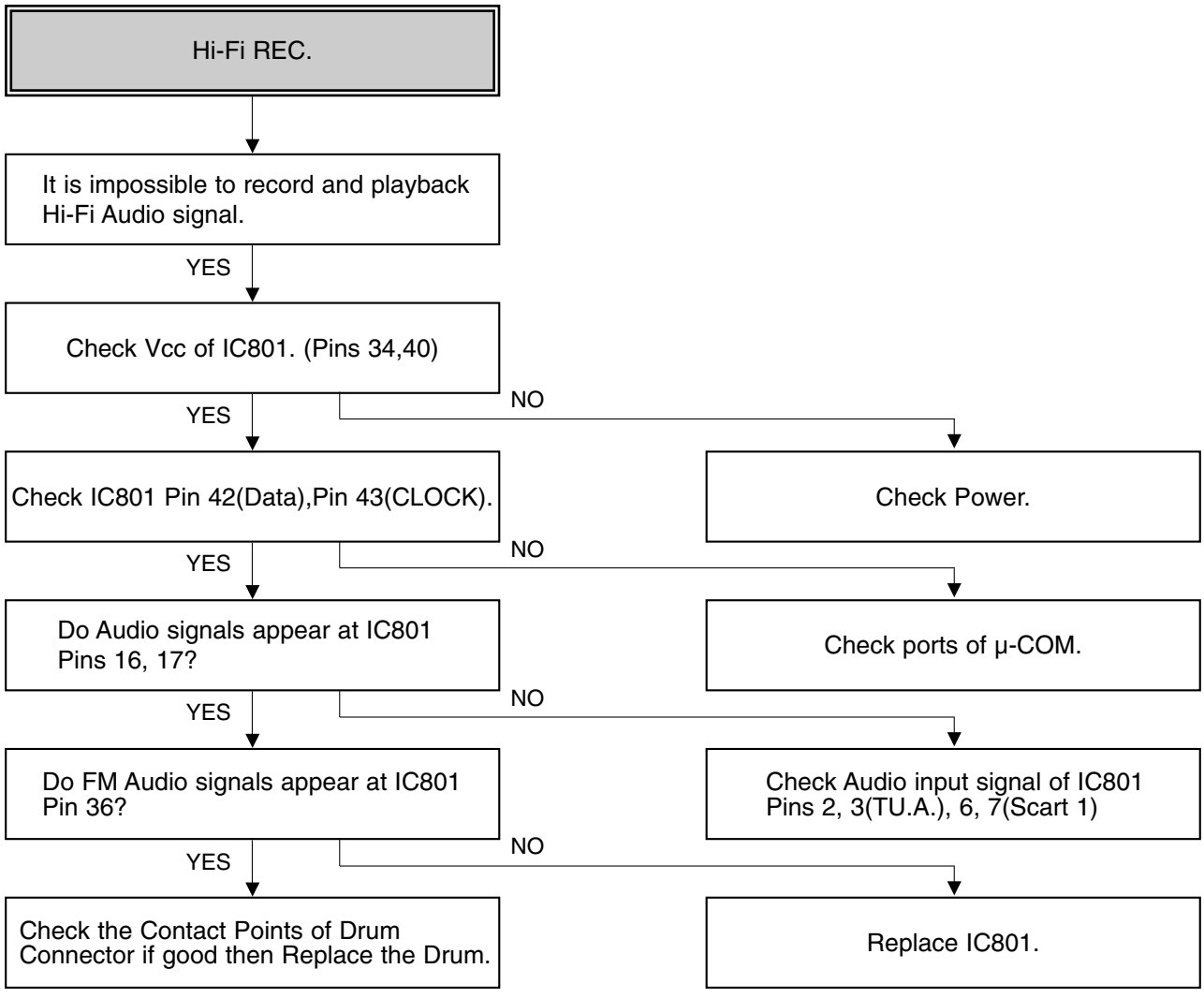
B.


Hi-Fi REC.
It is impossible to record and playback Hi-Fi Audio signal.
YES
Check Vcc of IC801. (Pins 34,40)
NO
YES
Check Power.
Check IC801 Pin 42(Data),Pin 43(CLOCK).
NO
YES
Check ports of µ-COM.
Do Audio signals appear at IC801 Pins 16, 17?
NO
YES
Check Audio input signal of IC801 Pins 2, 3(TU.A.), 6, 7(Scart 1)
Do FM Audio signals appear at IC801 Pin 36?
NO
YES
Replace IC801.
Check the Contact Points of Drum Connector if good then Replace the Drum.

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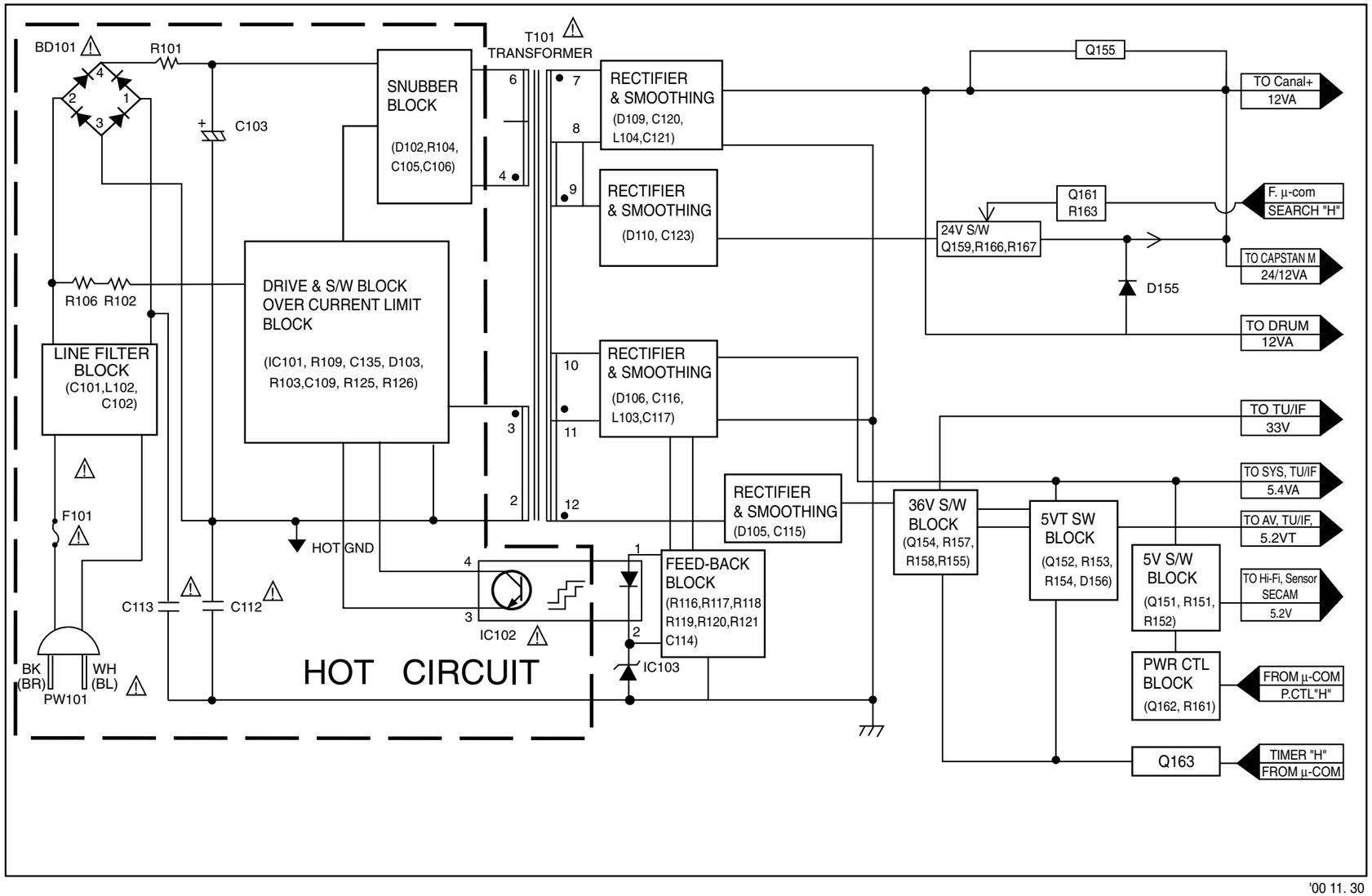
BLOCK DIAGRAMS

1. Power Block Diagram



'00 11. 30

NOTES : Symbol denotes AC ground.

Symbol denotes DC chassis ground.

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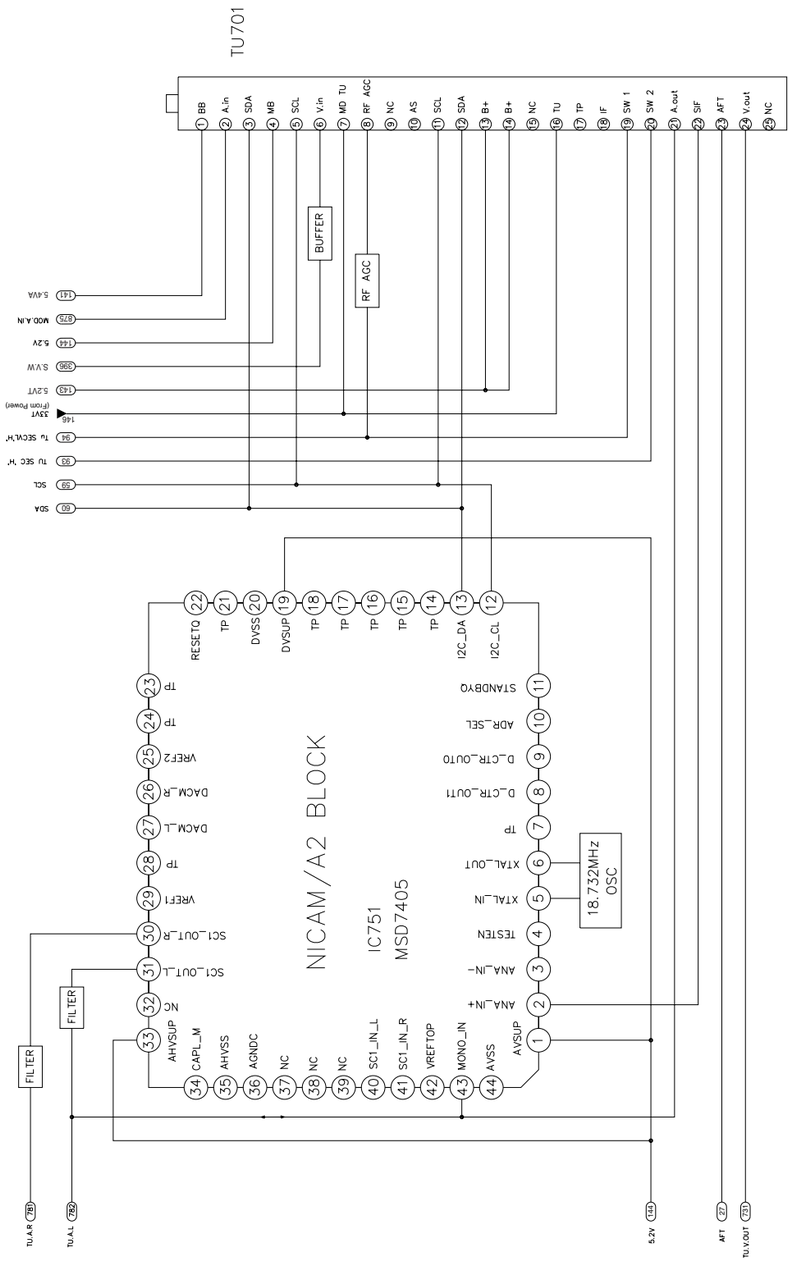
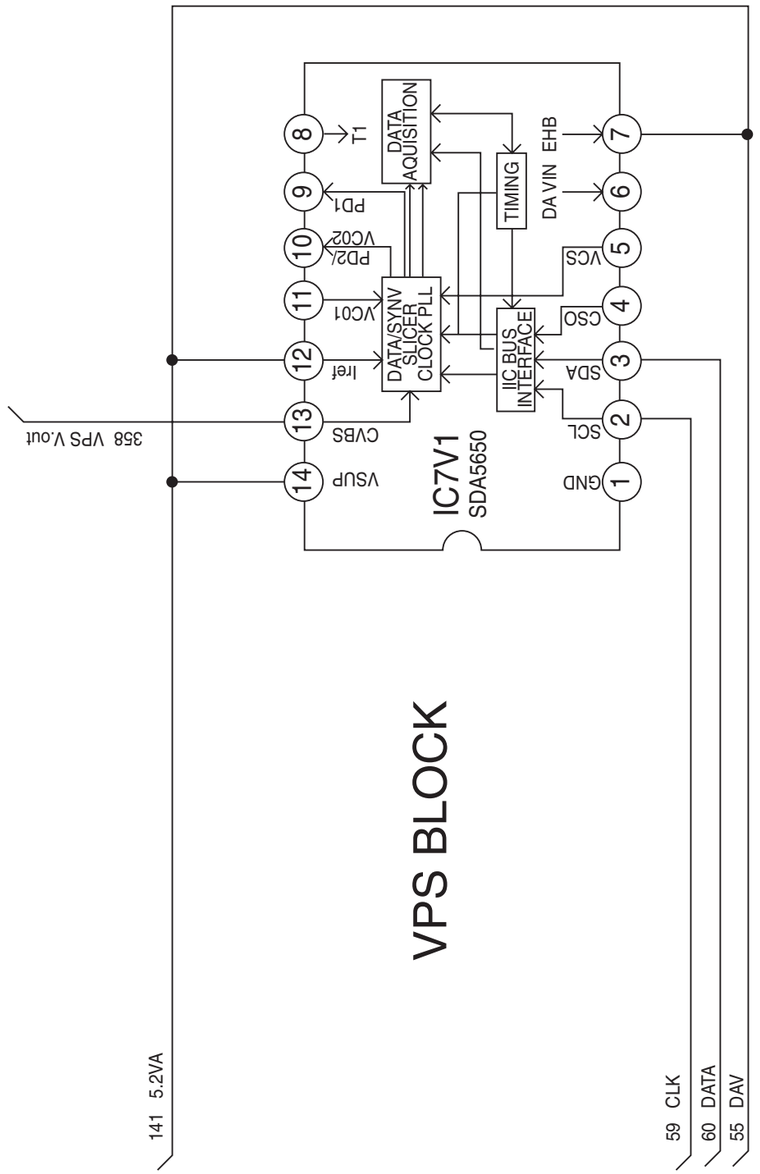
2. Tu/IF, NICAM & A2 Block Diagram



'99 12.8 R10488BA
BC999NS/BD289Y

3. VPS Block Diagram



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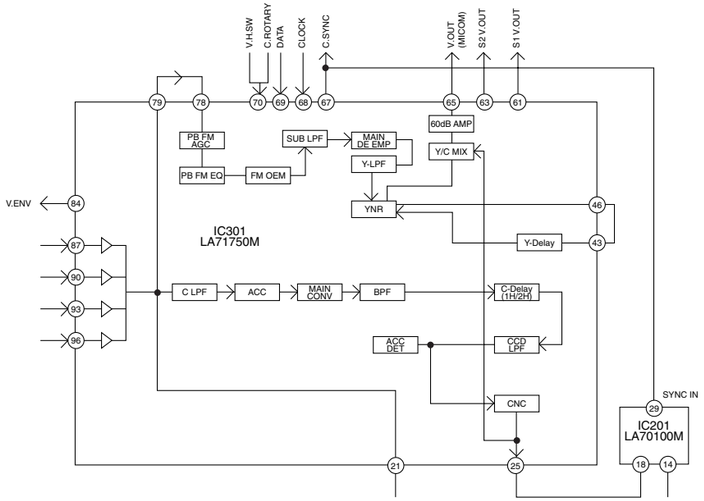
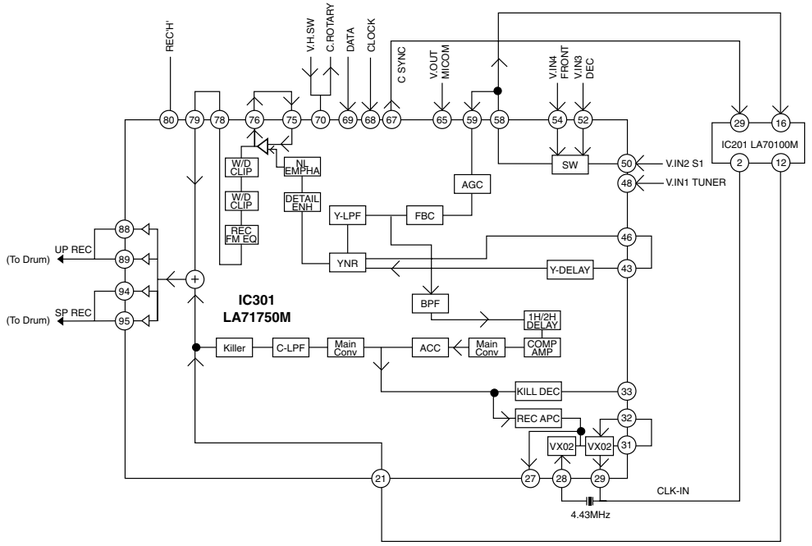
4. Y/C Block Diagram

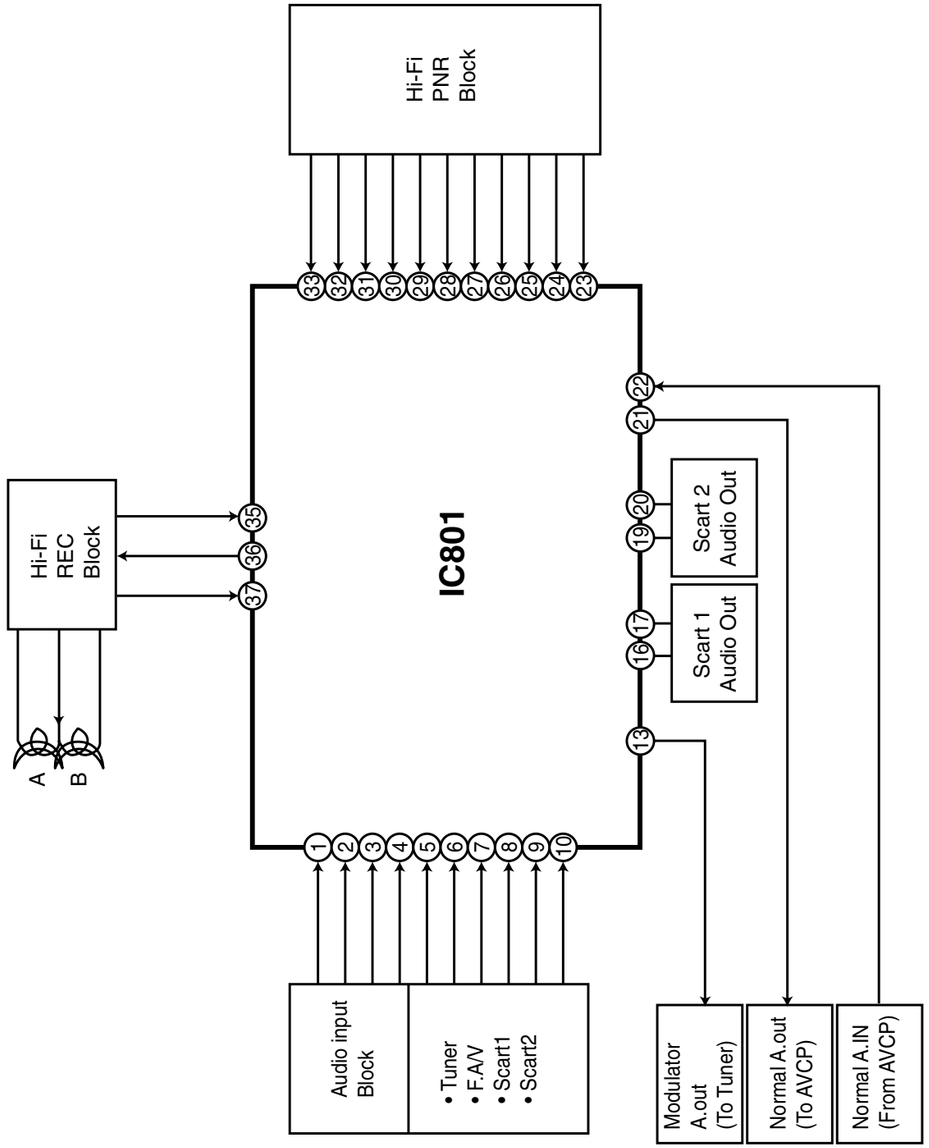
(PB MODE)



(REC MODE)



5. Hi-Fi Block Diagram(Hi-Fi Model Only)



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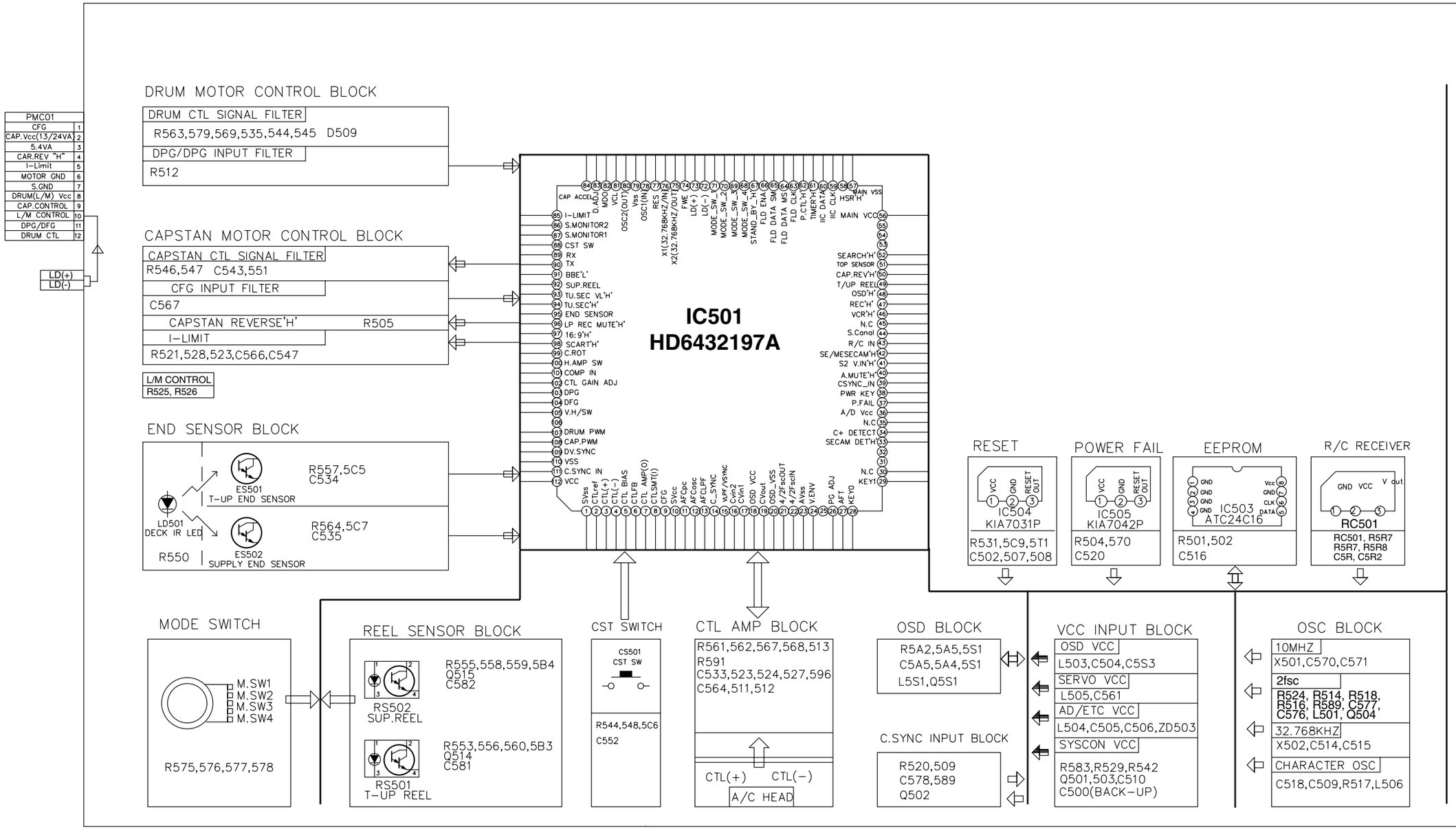
6. System Block Diagram



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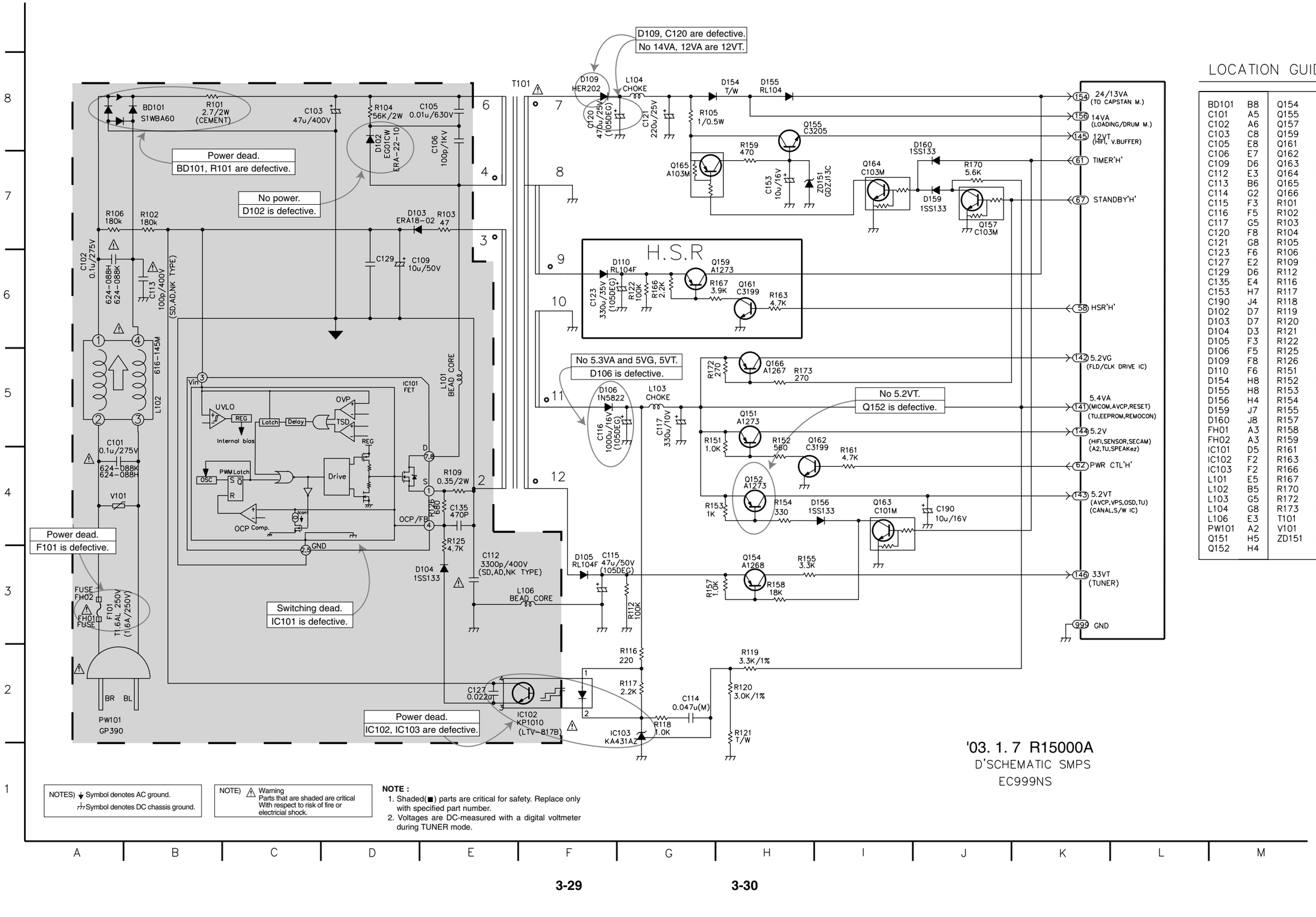
CIRCUIT DIAGRAMS

1. Power Circuit Diagram



NOTES) ⏚ Symbol denotes AC ground.
⏚ Symbol denotes DC chassis ground.

NOTE) ⚠ Warning
Parts that are shaded are critical With respect to risk of fire or electricial shock.

NOTE :
1. Shaded(■) parts are critical for safety. Replace only with specified part number.
2. Voltages are DC-measured with a digital voltmeter during TUNER mode.

'03. 1. 7 R15000A
D'SCHEMATIC SMPS
EC999NS

LOCATION GUIDE

BD101	B8	Q154	H3
C101	A5	Q155	H8
C102	A6	Q157	J7
C103	C8	Q159	G6
C105	E8	Q161	H6
C106	E7	Q162	H5
C109	D6	Q163	I4
C112	E3	Q164	I7
C113	B6	Q165	G7
C114	G2	Q166	H5
C115	F3	R101	B8
C116	F5	R102	B7
C117	G5	R103	E7
C120	F8	R104	D8
C121	G8	R105	G8
C123	F6	R106	A7
C127	E2	R109	E4
C129	D6	R112	G3
C135	E4	R116	G2
C153	H7	R117	G2
C190	J4	R118	G2
D102	D7	R119	H2
D103	D7	R120	H2
D104	D3	R121	H2
D105	F3	R122	G6
D106	F5	R125	E4
D109	F8	R126	E4
D110	F6	R151	G5
D154	H8	R152	H5
D155	H8	R153	G4
D156	H4	R154	H4
D159	J7	R155	H3
D160	J8	R157	G3
FH01	A3	R158	H3
FH02	A3	R159	H8
IC101	D5	R161	I4
IC102	F2	R163	H6
IC103	F2	R166	G6
L101	E5	R167	G6
L102	B5	R170	J7
L103	G5	R172	G5
L104	G8	R173	H5
L106	E3	T101	E8
PW101	A2	V101	A4
Q151	H5	ZD151	I7
Q152	H4		

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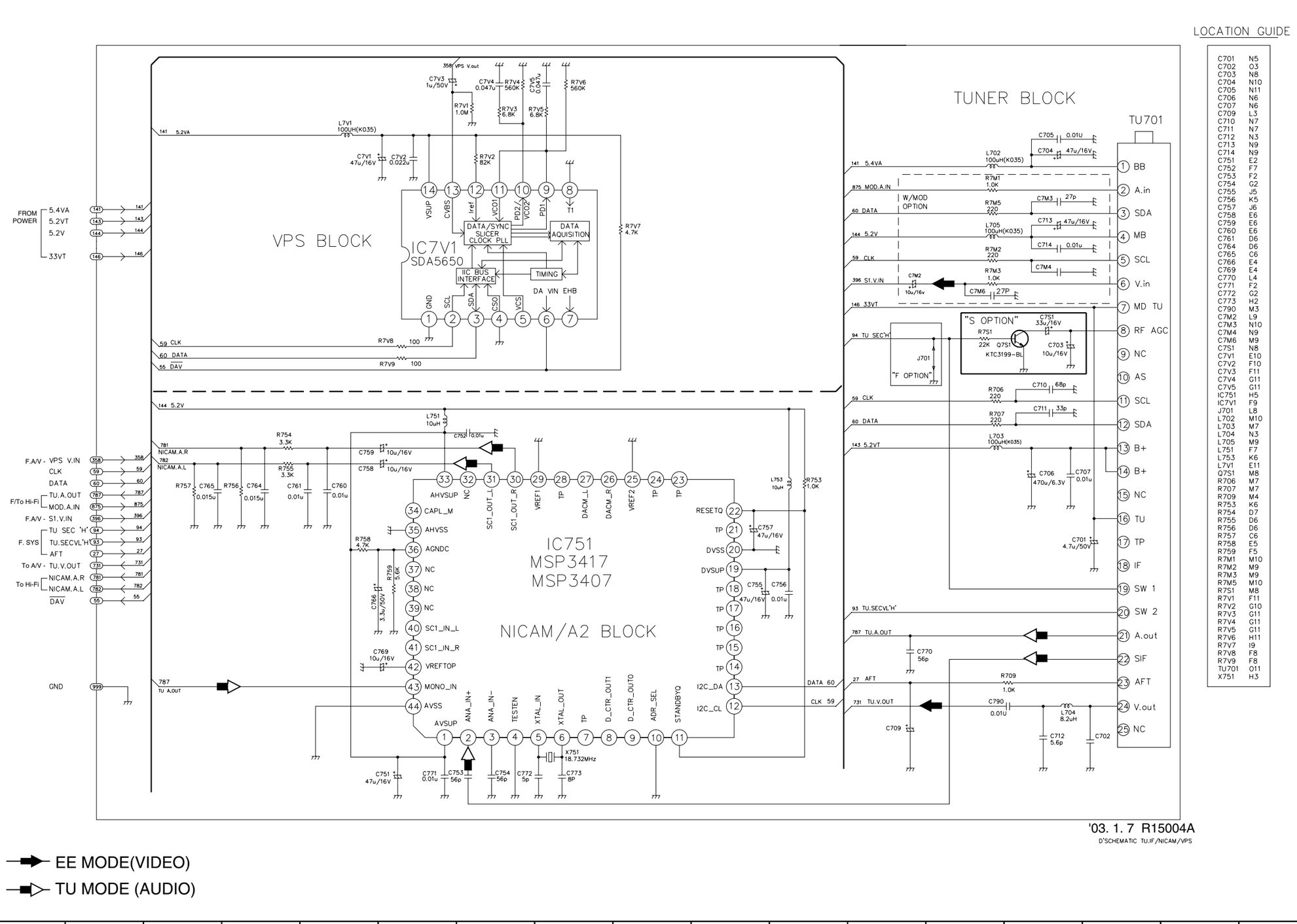
2. Tuner, NICAM Circuit Diagram



LOCATION GUIDE

C701	N5
C702	O3
C703	N8
C704	N10
C705	N11
C706	N6
C707	N6
C709	L3
C710	N7
C711	N7
C712	N3
C713	N9
C714	N9
C751	E2
C752	F7
C753	F2
C754	G2
C755	J5
C756	K5
C757	J6
C758	E6
C759	E6
C760	E6
C761	D6
C764	D6
C765	C6
C766	E4
C769	E4
C770	L4
C771	F2
C772	G2
C773	H2
C790	M3
C7M2	L9
C7M3	N10
C7M4	N9
C7M6	M9
C7S1	N8
C7V1	E10
C7V2	F10
C7V3	F11
C7V4	G11
C7V5	G11
IC751	H5
IC7V1	F9
J701	L8
L702	M10
L703	M7
L704	N3
L705	M9
L751	F7
L753	K6
L7V1	E11
Q751	M8
R706	M7
R707	M7
R709	M4
R753	K6
R754	D7
R755	D6
R756	D6
R757	C6
R758	E5
R759	F5
R7M1	M10
R7M2	M9
R7M3	M9
R7M5	M10
R7S1	M8
R7V1	F11
R7V2	G10
R7V3	G11
R7V4	G11
R7V5	G11
R7V6	H11
R7V7	I9
R7V8	F8
R7V9	F8
TU701	O11
X751	H3

'03. 1. 7 R15004A

D'SCHEMATIC TU.IF/NICAM/VPS

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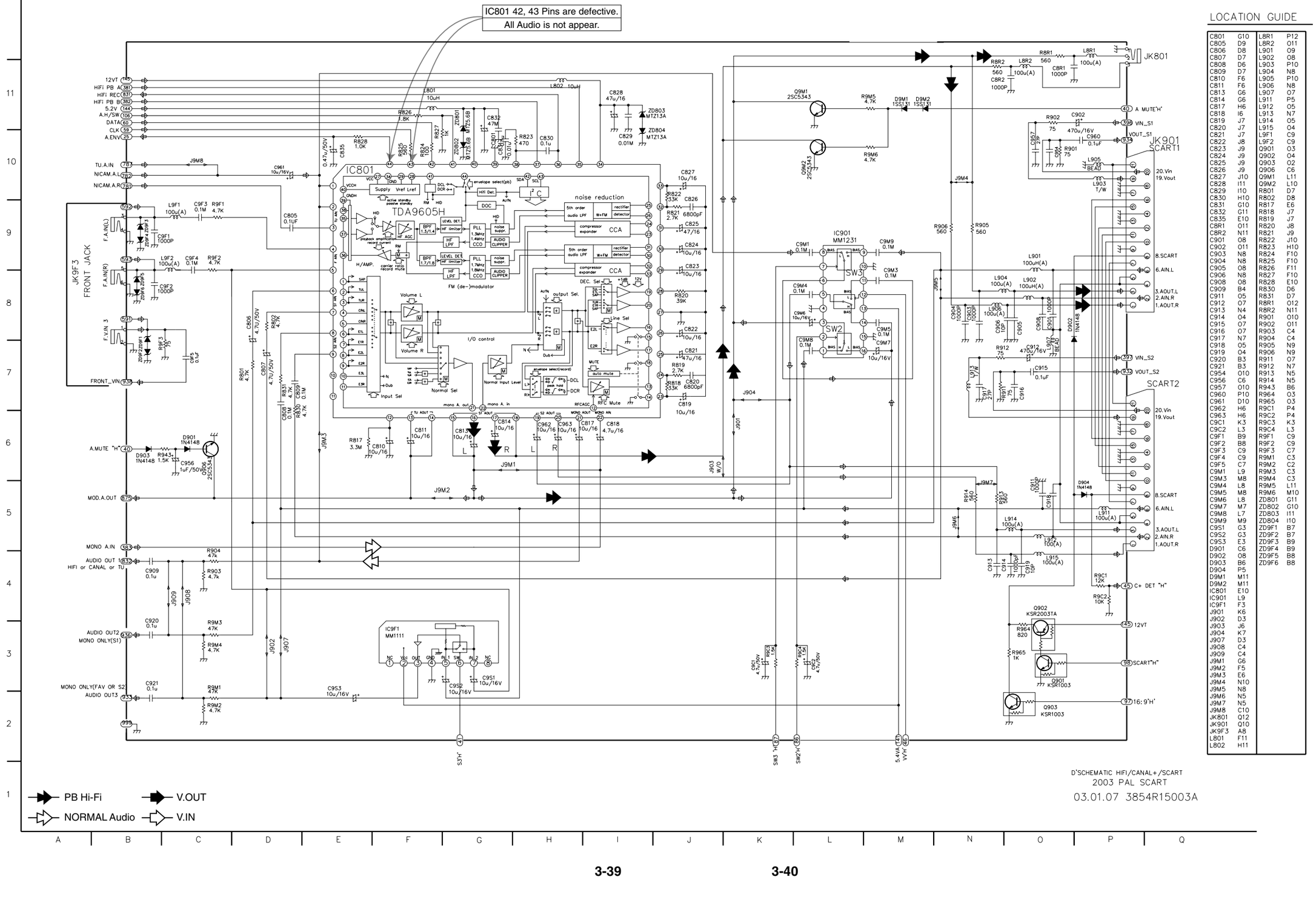
5. Hi-Fi, SCART Circuit Diagram



D'SCHEMATIC HIFI/CANAL+/SCART
2003 PAL SCART
03.01.07 3854R15003A

LOCATION GUIDE

C801	G10	L8R1	P12
C805	D9	L8R2	O11
C806	D8	L901	O9
C807	D7	L902	O8
C808	D6	L903	P10
C809	D7	L904	N8
C810	F6	L905	P10
C811	F6	L906	N8
C813	G6	L907	O7
C814	G6	L911	P5
C817	H6	L912	O5
C818	I6	L913	N7
C819	J7	L914	O5
C820	J7	L915	O4
C821	J7	L9F1	C9
C822	J8	L9F2	C9
C823	J9	Q901	O3
C824	J9	Q902	O4
C825	J9	Q903	O2
C826	J9	Q906	C6
C827	J10	Q9M1	L11
C828	I11	Q9M2	L10
C829	I10	R801	D7
C830	H10	R802	D8
C831	G10	R817	E6
C832	G11	R818	J7
C835	E10	R819	J7
C881	O11	R820	J8
C8R2	N11	R821	J9
C901	O8	R822	J10
C902	O11	R823	H10
C903	N8	R824	F10
C904	N8	R825	F10
C905	O8	R826	F11
C906	N8	R827	F10
C908	O8	R828	E10
C909	B4	R830	D6
C911	O5	R831	D7
C912	O7	R8R1	O12
C913	N4	R8R2	N11
C914	O4	R901	O10
C915	O7	R902	O11
C916	O7	R903	C4
C917	N7	R904	C4
C918	O5	R905	N9
C919	O4	R906	N9
C920	B3	R911	O7
C921	B3	R912	N7
C954	O10	R913	N5
C956	C6	R914	N5
C957	O10	R943	B6
C960	P10	R964	O3
C961	D10	R965	O3
C962	H6	R9C1	P4
C963	H6	R9C2	P4
C9C1	K3	R9C3	K3
C9C2	L3	R9C4	L3
C9F1	B9	R9F1	C9
C9F2	B8	R9F2	C9
C9F3	C9	R9F3	C7
C9F4	C9	R9M1	C3
C9F5	C7	R9M2	C2
C9M1	L9	R9M3	C3
C9M3	M8	R9M4	C3
C9M4	L8	R9M5	L11
C9M5	M8	R9M6	M10
C9M6	L8	ZD801	G11
C9M7	M7	ZD802	G10
C9M8	L7	ZD803	I11
C9M9	M9	ZD804	I10
C9S1	G3	ZD9F1	B7
C9S2	G3	ZD9F2	B7
C9S3	E3	ZD9F3	B9
D901	C6	ZD9F4	B9
D902	O8	ZD9F5	B8
D903	B6	ZD9F6	B8
D904	P5		
D9M1	M11		
D9M2	M11		
IC801	E10		
IC901	L9		
IC9F1	F3		
J901	K6		
J902	D3		
J903	J6		
J904	K7		
J907	D3		
J908	C4		
J909	C4		
J9M1	G6		
J9M2	F5		
J9M3	E6		
J9M4	N10		
J9M5	N8		
J9M6	N5		
J9M7	N5		
J9M8	C10		
JK801	Q12		
JK901	Q10		
JK9F3	A8		
L801	F11		
L802	H11		

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• CIRCUIT VOLTAGE CHART

MODE / PIN NO.	EE	PB	REC
IC103			
R	2.45	2.45	2.44
A	-0.03	-0.03	0
K	4.05	4.06	4.07
IC201			
1	2.52	2.52	2.52
2	2.4	2.41	2.41
3	0	3.35	3.37
4	0	2.59	0
5	0	0	0
6	2.8	3.72	0
7	0	0	0
8	0	0	0
9	3.04	3.02	3.04
10	2.53	2.51	0
11	2.1	2.08	2.19
12	3.32	1.96	3.25
13	4.01	4.01	4.01
14	2.55	2.54	2.56
15	3.06	1.94	3.06
16	6.2	3.2	3.22
17	2.34	4.25	0.22
18	0.13	3.44	0.13
19	2.23	2.21	2.22
20	2.08	2.22	2.06
21	2.27	2.4	2.28
22	1.42	1.43	0
23	5.05	5.02	5.06
24	5.05	5.02	5.06
25	2.31	2.07	2.37
26	2.3	2.02	2.38
27	2.09	2.08	2.11
28	0.18	0.19	0.18
29	0.48	0.26	0.41
30	2.08	2.07	2.11
IC401			
1	0	0.01	0
2	5.21	5.2	5.21
3	2.19	2.2	2.19
4	0	0	0
5	2.91	2.91	2.91
6	0	0	0
7	2.92	2.92	2.92
8	0	0	0
IC402			
1	0	0	0
2	2.86	2.86	2.85
3	5.15	5.16	0
4	5.29	5.29	5.29
5	4.94	4.94	4.94
6	5.29	5.29	5.29
7	5.29	5.2	5.29
8	2.57	2.57	2.57
9	0	0	0
10	5.29	5.29	5.29

MODE / PIN NO.	EE	PB	REC
11	2.41	2.41	2.42
12	2.1	2.1	2.08
13	0	5..29	5.29
14	5.26	5.26	5.25
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
IC301			
1	5.15	5.14	1.7
2	0.02	0.03	0.75
3	2.29	2.29	0
4		1.46	0.5
5	2.28	2.26	2.47
6	2.29	2.28	2.29
7	2.28	2.28	2.27
8	2.27	2.27	2.27
9	2.26	2.26	3.05
10	2.29	2.29	2.28
11	2.37	2.39	2.28
12	0	0.02	0.11
13	2.26	2.3	2.28
14		0.02	
15	2.26	2.26	2.29
16	5.17	0.16	5.05
17	2.26	2.26	2.27
18	5.17	5.17	5.14
19	4.24	4.25	3.07
20	0	0	0
21	3.36	1.96	3.25
22	3.07	3.06	3.06
23	3.06	3.03	3.05
24	5.16	5.16	5.13
25	0.13	3.44	5.13
26	1.44	1.82	0
27	2.07	2.1	1.42
28	4.23	4.21	4.18
29	2.83	2.83	2.9
30	0	0	0
31	4.7	4.7	4.69
32	4.7	4.7	4.69
33	2.85	2.06	2.07
34	0.33	0.31	0.31
35	2.17	2.16	2.16
36	3.35	3.35	3.35
37	2.09	2.11	2.09
38	1.99	2.03	2.02
39	9.45	9.43	9.39
40	0	0	0
41	0	0	0
42	5.17	5.16	5.14
43	2.4	2.42	2.39
44	2.34	4.42	0.08
45	2.33	2.46	2.46
46	2.69	2.67	2.68

MODE / PIN NO.	EE	PB	REC
47	4.17	4.17	4.17
48	2.35	2.37	2.33
49	3.18	3.18	3.18
50	1.97	1.97	1.97
51	0	0	0
52	1.97	1.97	1.97
53	2.34	2.35	2.35
54	1.97	1.99	1.99
55	5.24	5.24	5.24
56	2.25	2.31	2.29
57	2.02	2.14	1.99
58	2.37		2.4
59	2.94	2.95	2.93
60	1.42	1.55	1.38
61	1.72	1.85	2.05
62	0.09	0.11	0.11
63	1.75	1.84	
64	0	0	0.
65	1.85	1.85	1.81
66	0	0	0
67	0.	0.44	0.4
68	4.79	4.91	4.81
69	4.75	4.81	4.79
70	5.27	2.69	2.69
71	0.01	0	0.01
72	5.13	5.11	5.09
73		1.98	2.21
74	2.55	2.63	2.53
75	2.46	2.63	2.45
76	2.47	0.77	2.45
77	1.59	1.59	1.49
78	2.7	3.39	2.69
79	2.02	1.91	2.52
80	1.06	1.06	4.72
81	1.11	1.12	1.11
82	0	0	0
83	5.13	1.47	1.51
84	0.46	2.43	1.75
85	0	0	1.36
86		0	2.03
87	0	0.72	0.7
88	0.71	0.72	0.7
89	0.71	0.72	0.7
90	0.71	0.72	0.7
91	5.17	5.16	5.11
92	0	0	0
93	1.95	1.93	0.73
94	1.95	1.93	0.72
95	1.95	1.93	0.72
96	1.95	1.93	4.33
97	0	0	0
98	2.29	2.29	2.4
99	0	2.29	2.4
100	2.29	2.29	2.53

MODE / PIN NO.	EE	PB	REC
IC501			
1	0	0	0
2	2.39	2.57	2.57
3	2.57	2.57	3.04
4	2.57	2.57	2.1
5	2.57	2.57	2.57
6	2.56	2.57	2.57
7	2.58	2.59	2.58
8	2.55	2.55	2.55
9	4.62	2.31	2.31
10	4.85	5.16	5.016
11	1.89	1.91	1.9
12	1.89	1.9	1.89
13	2.61	2.5	2.49
14	0.4	0.4	0.4
15	0.08	0.1	0.56
16	1.99	1.91	1.98
17	2.39	2.34	2.31
18	5.14	5.14	5.11
19	2.41	2.37	2.33
20	0	0	0
21	2.47	2.47	0
22	2.46	2.46	0
23	0	0	0
24	0.51	2.47	0.01
25	2.81	2.88	2.8
26	5.27	2.28	5.28
27	2.46	2.5	2.54
28	5.27	5.28	5.28
29	5.22	5.27	5.27
30	0	5.01	0.05
31	0.17		1.9
32	0.12		
33	0.18	0.18	0.18
34	0.31	0.3	0.43
35	5.27	5.28	5.28
36	5.28	5.29	5.28
37	4.93	4.94	4.94
38	4.88	4.88	4.87
39	2.29	2.29	2.28
40	0	0	0
41	0	0	0
42	0	0	0
43	4.88	4.88	4.87
44	5.24	5.25	5.24
45	0	0	0
46	0	0	0
47	0	0	0
48	0	0	0
49	0.01	5.28	
50	5.25	0	0
51	4.48	0.04	0.02
52	5.28	5.29	5.29
53	0	0	0
54	5.25	5.26	5.27

MODE / PIN NO.	EE	PB	REC
55	5.27	5.29	0.08
56	5.27	5.28	5.28
57	0	0	0
58	0	0	0
59	4.91	4.92	4.79
60	4.91	4.91	4.79
61	5.17	5.18	5.18
62	5.17	5.19	5.18
63	2.84	2.83	2.86
64	5.14	5.14	5.15
65	0.01	0.01	0.02
66	5.1	5.11	5.11
67	0.83	0.83	0.89
68	0.01	5.3	5.3
69	0.01	5.3	5.3
70	5.29	5.3	5.3
71	5.29	0	0.01
72	0.03	0.03	0.04
73	5.24	5.23	5.22
74	0	0	0
75	1.49	1.5	1.5
76	1.3	1.4	1.21
77	5.27	5.27	5.27
78	2.55	2.53	2.54
79	0	0	0
80	5.29	2.58	2.58
81	3.25	3.25	3.25
82	5.28	5.28	5.28
83	0	2.7	2.69
84	0	2.77	2.77
85	0	3.55	3.55
86	2.65	2.68	2.86
87	0	3.3	3.21
88	0	0	0
89	0	0	0
90	0	0	0
91	0	0	0
92	0.95	5.16	
93	0	0	0
94	0	0	0
95	0.29	0.1	0.07
96	0	0	0
97	0	0	0
98	5.26	5.26	5.25
99	0	2.7	0
100	0.01	0	0
101	0.7	0.13	0.57
102	0	0	0
103	0.12	1.39	1.39
104	0.12	1.39	1.39
105	0	2.7	0
106	0	2.64	5.12
107	0	2.75	2.74
108	0	2.78	2.77
109	0.05	0.05	0.05

MODE / PIN NO.	EE	PB	REC
110	0	0	0
111	4.2	0.4	0.4
112	5.29	5.28	5.27
IC503			
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	5.01	4.95	4.79
6	5.01	4.95	4.8
7	0	0	0
8	5.29	5.29	5.28
IC504			
1	5.28	5.28	5.28
2	0	0	0
3	5.28	5.28	5.28
IC505			
1	5.28	5.28	5.28
2	0	0	0
3	4.87	4.87	4.87
IC506			
1	2.22	2.12	2.14
2	5.16	5.15	2.15
3	2.85	2.86	2.85
4	5.11	5.11	5.11
5	4.58	4.38	4.44
6	1.78	2.15	1.41
7	2.11	2.14	2.58
8	2.64	2.62	2.6
9	1.95	2.04	1.51
10	1.52	1.62	1.52
11	1.96	2.27	1.41
12	1.96	1.79	1.95
13	0.61	0.59	0.64
14	1.41	1.38	1.43
15	0.53	0.48	0.53
16	0.53	0.48	0.54
17	1.14	1.13	1.13
18	4.49	4.41	4.47
19	0	0	0
20	1.13	1.15	1.2
21	1.14	1.13	1.21
22	1.12	1.13	1.2
23	1.24	1.25	1.35
24	0	0	0
IC7V1			
1	0	0	0
2	5.01	4.94	4.79
3	5.01	4.94	4.78
4	0	0	0
5	5.28	5.28	0.39
6	5.28	5.28	
7	0	0	2.66
8	0	0	0
9	0.01	0.01	2.31

MODE / PIN NO.	EE	PB	REC
10	0	0	2.36
11	0.01	0	2.31
12	1.56	1.56	1.56
13	0.99	0.99	1.39
14	5.28	5.29	5.28
IC801			
1	2.84	2.91	2.7
2	2.92	2.91	2.81
3	2.91	2.9	2.81
4	2.82	2.81	2.68
5	2.8	2.86	2.67
6	2.8	2..86	2.66
7	2.79	2.85	2.65
8	2.78	2.85	2.65
9	2.79	2.84	2.66
10	2.79	2.84	2.66
11	2.77	2.83	2.65
12	2.76	2.82	2.64
13	2.71	2.75	2.59
14	2.49	2.51	2.33
15	2.48	2.51	2.32
16	2.64	2.67	2.49
17	2.64	2.68	2.5
18	1.48	2.57	2.32
19	2.63	2.67	2.5
20	2.6	2.63	2.5
21	2.57	2.59	2.47
22	2.66	2.86	2.55
23	2.63	2.64	2.51
24	2.5	2.5	2.39
25	2.52	2.53	2.4
26	2.36	2.37	2.27
27	0.01	0	0
28	2.51	2.47	2.41
29	2.6	2.57	2.46
30			
31	2.34	2.41	1.38
32	0.03	0.02	-0.07
33	0.03	0.04	-0.06
34	12.6	12.5	12.57
35	3.35	3.31	2.89
36	3.29	3.3	2.9
37	3.29	3.3	2.9
38	3.55	3.56	3.42
39	0	0	0.01
40	5.2	5.2	5.21
41	2.27	2.29	2.5
42	4.96	4.98	4.91
43	5.05	5.06	4.97
44	2.8	2.79	2.69
IC751			
1	5.14	5.15	5.15
2	1.51	1.51	1.51
3	1.51	1.51	1.51
4	0	0	0

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MODE / PIN NO.	EE	PB	REC
5	2.47	2.48	2.48
6	2.47	2.48	2.48
7	0.54	0.5	0.46
8	0	0	0.45
9	0	0	0.45
10	0	0	0
11	5.16	5.16	5.16
12	4.91	4.86	4.79
13	4.9	4.8	4.79
14	2.58	0.51	0.57
15	2.58	0.5	0
16	2.41	0.51	0.57
17	0.53	0.53	0
18	0.54	0.51	0.58
19	5.13	5.14	5.14
20	0	0	0
21	0.53	0.51	0
22	5.16	5.16	5.16
23	0	0.02	0
24	0	0.02	0
25	0	0	0
26	0	0.05	0
27	0.05	0.05	0
28	0	0	0
29	0	0	2.8
30	2.8	2.8	2.8
31	2.79	2.79	2.79
32	0	0.02	0
33	5.16	5.14	5.15
34	4.2	4.2	4.21
35	0	0	0
36	2.8	2.8	2.8
37			0
38			0
39			0
40	2.84	2.84	2.79
41	2.85	2.83	2.79
42	2.59	2.59	2.59
43	2.31	2.31	2.3
44	3.3		0

Transistor	EE Mode			PB Mode			REC Mode		
	EE	PB	REC	EE	PB	REC	EE	PB	REC
Q151	4.55	5.3	5.24	5.34	4.54	5.24	5.3	4.55	5.24
Q152	5.31	4.52	5.22	5.31	4.52	5.22	5.3	4.51	5.22
Q154	32.99	32.34	32.97	33.53	32.89	33.5	33.76	33.12	33.72
Q155	12.73	13.4	14.05	12.68	13.35	13.77	12.76	13.42	13.98
Q157	0.03	0.84	4.38	0.03	0.84	4.38	-0.03	0.84	4.38
Q159	29.84	29.78	13.21	29.79	29.8	12.48	30.14	30.13	12.73
Q161	0.03	0	29.82	0.03	0	29.8	-0.03	0	30.11
Q162	0.02	0.69	0	-0.02	0.69	0	-0.02	0.69	0
Q163	0.03	5.18	0.03	0.03	5.18	0.03	-0.03	5.18	0.03
Q164	-0.03	4.38	-0.01	-0.03	4.38	-0.01	-0.03	4.38	0
Q165	14.06	-0.01	14.04	13.74	-0.01	13.71	13.95	-0.01	13.95
Q166	4.4	5.3	5.11	5.3	4.41	5.13	5.3	4.4	5.1
Q301	0	0.01	5.15	0	0	5.15	0	0.75	1.69
Q302	5.18	5.18	-0.42	5.18	4.52	5.12	5.14	5.13	-24.71
Q303	0.01	-0.42	0	0	0.69	0.01	-18.22	-24.85	0.01
Q304	0.01	-0.4	0	0	0.71	0	-18.22	-24.7	0
Q305	2.01	1.29	0	2.53	1.83	0	2.5	1.81	0
Q306	5.14	5.19	5.19	5.19	5.16	5.19	1.9	2.14	4.89
Q307	2.69	1.98	0	2.69	1.98	0	2.64	1.93	0
Q308	2.66	1.98	0	2.63	1.96	0	2.6	1.93	0
Q309	3.09	2.41	0	3.05	2.37	0	3.01	2.33	0
Q501	0	0.67	0.01	0	0.67	0.01	0	0.67	0.01
Q502	0	0.71	0.01	0	0.22	2.33	0	0.23	2.29
Q503	5.3	4.61	5.28	5.3	4.61	5.28	5.3	4.61	5.28
Q504	0	0.14	2.69	0.05	0.63	2.65	0.05	0.67	2.67
Q5S1	0.43	0	1.61	2.22	0	2.53	1.92	0	2.5
Q514	0	5.09	0.01	0			0		
Q515	0	0	5.16	0			0		
Q906	0	0.12	1.93	0	0.07	2.37	0	0.13	2.4
Q901	0	5.26	0.01	0	5.25	0.01	0	5.25	0.01
Q7S1	0	0	1.32	0	0		0	0	0.98
Q902	12.73	0.01	12.73	12.66	0.01	12.66	12.72	0.01	12.71
Q903	0	0	12.72	0	0	12.64	0	0	12.71

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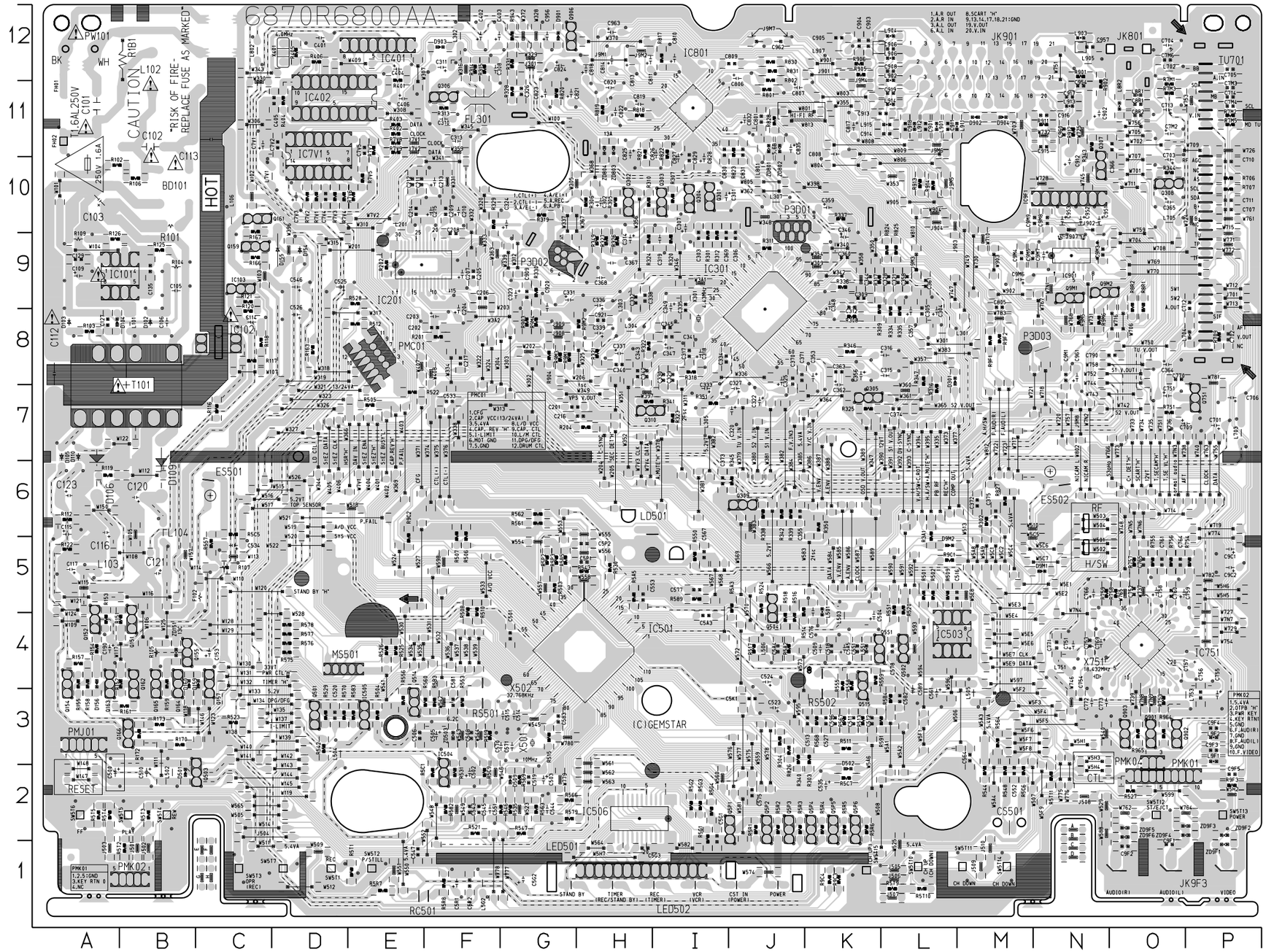
PRINTED CIRCUIT BOARD DIAGRAMS

1. MAIN P.C.Board



(Solder Side)

NOTES) ⚠ Warning
Parts that are shaded are critical
With respect to risk of fire or
electricial shock.

LOCATION GUIDE

BD101	B10	C339	H8	C570	G3	C814	H12	D160	B4	L506	J4	Q751	P7	R335	L8	R569	G2	R822	J11
C101	A11	C340	H8	C571	G3	C817	K11	D501	L8	L502	F1	Q901	O3	R336	K9	R570	D3	R823	J11
C102	B11	C341	I8	C575	J2	C818	H12	D501	B2	L551	K4	Q902	O3	R337	K10	R575	D4	R824	L9
C103	A10	C342	H8	C576	K5	C819	H11	D502	K2	L702	D12	Q903	O3	R338	J6	R576	D4	R825	L9
C105	B9	C343	H8	C578	L4	C820	H11	D503	G2	L703	P7	Q906	O12	R339	J6	R577	D4	R826	J3
C106	B8	C344	K9	C581	F3	C821	G11	D901	G12	L704	P8	Q9M1	N9	R340	J3	R578	D4	R827	M6
C109	A9	C345	I8	C582	L3	C822	H11	D902	M11	L705	O10	Q9M2	N9	R341	H7	R579	G2	R828	J11
C112	A8	C346	K9	C583	G3	C823	G11	D903	F12	L751	N4	R101	B10	R342	J6	R582	F2	R830	J12
C113	C11	C347	I8	C589	G3	C824	G12	D904	M11	L753	P3	R102	A10	R343	N11	R583	E3	R831	J12
C114	C8	C348	K9	C589	L3	C825	H11	D9M1	N5	L7V1	D10	R103	A8	R344	O10	R589	I5	R8R1	Q9
C115	A6	C349	I9	C596	K3	C826	I11	D9M2	L5	L801	J11	R104	B9	R345	J6	R591	L3	R8R2	Q9
C116	A6	C353	K8	C5A3	J4	C827	I10	E5501	C7	L802	C12	R105	B4	R346	K8	R5A2	J4	R901	N12
C117	A5	C355	J6	C5A4	J4	C828	I10	E5502	N6	L8R1	O11	R106	B10	R347	L8	R5A3	J5	R902	N11
C120	B6	C356	K8	C5A5	K4	C829	I10	F102	C5	L8R2	O11	R107	C5	R349	H9	R5A5	H5	R903	G8
C121	B5	C357	L8	C5C1	I2	C830	I11	FH01	A11	L901	L11	R109	A9	R350	K6	R5B3	F3	R904	G8
C123	A6	C358	L9	C5C2	G1	C831	J11	FH02	A11	L902	L12	R112	A6	R351	I7	R5BL	L3	R905	K12
C127	A8	C359	K10	C5C3	G3	C832	J11	FL301	F11	L903	N2	R116	C7	R3A1	L6	R5B5	G5	R906	K12
C129	A9	C360	K9	C5K1	J3	C835	J11	IC101	A9	L904	L12	R117	C8	R402	E12	R5C1	F2	R911	N11
C135	B9	C361	L9	C5P1	H5	C8R1	O11	IC103	C9	L905	N2	R118	C8	R403	E11	R5C5	G5	R912	N11
C153	C4	C362	K7	C5P2	H5	C8R2	O11	IC103	C9	L906	L12	R119	A6	R403	E11	R5C6	M2	R913	L10
C190	A4	C363	K8	C5R1	F1	C901	L11	IC401	E12	L907	K12	R120	C8	R404	D11	R5C7	K2	R914	L10
C201	G7	C364	I8	C5R2	F1	C902	L11	IC402	E12	L911	M11	R121	C8	R405	D12	R5D1	F2	R915	G12
C202	F8	C365	O10	C551	K4	C903	K12	IC503	M4	L912	L11	R122	A5	R406	D12	R5G1	I2	R964	O3
C203	F8	C366	O11	C553	H5	C904	K12	IC504	F2	L913	N11	R125	B9	R501	L5	R5G2	I2	R965	O3
C204	F8	C367	H9	C701	P8	C905	K12	IC506	F2	L914	L11	R126	A9	R502	L5	R5G3	I3	R9C1	E5
C205	F9	C368	H9	C702	P8	C906	L12	IC7Y1	D11	L915	L11	R151	B4	R503	G5	R5G4	I2	R9C2	E5
C206	F9	C369	I9	C703	O10	C908	L12	IC9F1	N10	L9F1	P3	R152	B4	R504	E3	R5P2	G5	R9C3	K1
C207	F9	C370	I8	C704	O10	C909	L12	IF5F2	P3	L9H3	A4	R153	B4	R505	E7	R5P3	A4	R9C4	K1
C208	F9	C371	J8	C705	P12	C911	L11	J501	B1	LD501	I5	R154	A4	R506	F6	R5R1	J2	R9F1	M8
C209	F10	C372	M6	C706	P7	C912	N10	J502	B1	LED501	I1	R155	A4	R507	F6	R5R2	J2	R9F2	M8
C210	F10	C373	I6	C707	P10	C913	L11	J503	B1	LED502	I1	R157	A4	R508	F5	R5R3	J2	R9F3	F2
C211	E10	C374	L7	C709	P7	C914	L11	J504	C2	M5501	O5	R158	A4	R509	L5	R5R4	K2	R9M1	G8
C212	E10	C375	M6	C710	P10	C915	N11	J505	L1	P3001	J10	R159	B4	R510	F5	R5R5	K2	R9M2	H8
C213	F10	C401	D12	C711	P10	C916	N11	J506	L1	P3002	O9	R161	B4	R511	F5	R5R6	K2	R9M3	G8
C214	E10	C402	F12	C712	P9	C917	N11	J507	L1	P3003	N8	R163	D8	R512	E8	R5R7	E1	R9M4	G8
C215	F10	C403	F12	C713	P11	C918	L11	J508	N2	PMC01	E8	R166	C10	R513	K6	R5R8	F1	R9M5	N8
C216	H7	C404	E12	C714	O11	C919	L11	J509	M1	PMJ01	A3	R167	B3	R514	J5	R5S1	L5	R9M6	N8
C217	F8	C405	D11	C751	N4	C920	G9	J510	M1	PMK01	O2	R170	B3	R515	G3	R5T1	E1	RC501	E1
C301	H10	C406	E11	C752	O5	C921	H8	J701	P9	PMK02	B1	R172	B3	R516	J4	R5U10	F3	RC502	F3
C302	H10	C500	A2	C753	N4	C954	N11	J7V1	E11	PMK04	O3	R173	B3	R517	J4	R5U11	N2	RC502	K4
C303	I9	C501	G6	C754	N3	C956	G12	J7Y2	E11	PW101	A12	R181	B12	R518	J4	R5T2	B1	SW511	D1
C304	L8	C502	F2	C755	P3	C957	N12	J901	K12	Q151	B4	R201	F8	R519	F3	R5U13	K2	SW511	L1
C305	L8	C503	G2	C756	P3	C960	N11	J902	N10	Q152	A4	R202	E9	R520	L5	R5T4	A2	SW511	M1
C306	J9	C504	K4	C757	P4	C961	N8	J903	L10	Q154	A4	R204	H7	R521	F2	R5T5	A2	SW5T12	O2
C307	I10	C505	F3	C758	O5	C962	J12	J904	L10	Q155	B4	R301	I9	R522	E7	R5U13	F2	SW5T13	P2
C308	F12	C506	E3	C759	O5	C963	H12	J907	N10	Q157	C4	R302	M6	R523	C3	R706	P10	SW5T14	M1
C309	K9	C508	F3	C760	O5	C9C1	P5	J908	G8	Q159	C9	R303	K3	R524	J5	R707	P10	SW5T15	K1
C310	I10	C509	K4	C761	O5	C9C2	P5	J909	G8	Q161	C10	R304	J3	R525	E4	R708	P8	SW5T16	E1
C311	F12	C510	B2	C764	O5	C9F1	O1	J9M1	H12	Q162	B4	R305	H10	R526	E4	R753	O3	SW5T3	C1
C312	K9	C511	K3	C765	O5	C9F2	O1	J9M2	H12	Q163	A4	R306	H10	R527	O2	R754	P5	SW5T4	B2
C313	F11	C512	K3	C766	O5	C9F3	P3	J9M3	K11	Q164	B4	R307	I10	R528	E3	R755	P5	SW5T5	A2
C314	H9	C513	K3	C769	N6	C9F4	P3	J9M4	K11	Q165	B4	R308	K8	R529	D3	R756	O5	SW5T6	A2
C315	L8	C514	G3	C770	O8	C9F5	P2	J9M5	L10	Q166	B3	R309	K8	R530	H5	R757	O5	SW5T7	D1
C316	L8	C515	G3	C771	N5	C9M1	N9	J9M6	L10	Q201	F8	R310	I10	R531	F2	R758	O5	SW5T8	B7
C317	I8	C516	M5	C772	N3	C9M3	N9	J9M7	J12	Q302	M6	R311	J9	R535	G2	R759	N5	TU701	P12
C318	I8	C518	K4	C773	N3	C9M4	M9	J9M8	N7	Q303	I10	R312	I9	R542	D3	R7M1	O11	X301	I8
C319	I9	C519	G2	C780	O8	C9M5	M9	JK901	O12	Q304	H5	R313	F11	R543	H5	R7M2	P11	X401	D12
C320	J7	C520	D3	C7M2	O11	C9M6	M9	JK901	M12	Q305	K7	R314	F12	R544	M2	R7M3	O11	X501	G3
C321	L9	C523	J3	C7M3	P11	C9M7	N9	JK9F3	P1	Q306	F11	R315	F12	R546	G2	R7M5	P11	X502	G3
C322	J7	C524	J4	C7M4	P11	C9M8	N10	L101	B8	Q307	M10	R316	L7	R547	G2	R751	O7	X751	N4
C323	G9	C525	D9	C7M6	O12	C9M9	N10	L102	B12	Q308	O10	R317	K9	R548	M2	R7V1	D10	ZD151	B4
C324	G10	C526	D8	C751	O7	C951	N10	L103	A5	Q309	J6	R318	I8	R550	I5	R7V2	D10	ZD503	F3
C325	J8	C527	K3	C7V1	C11	C952	N10	L104	B6	Q310	H7	R319	G10	R553	F3	R7V3	D10	ZD801	J11
C326	G11	C533	F7	C7V2	D11	C953	N10	L106	C10	Q501	D3	R320	I9	R555	K4	R7V4	D10	ZD802	J11
C327	J7	C534	C5	C7Y3	D10	C5501	M2	L201	E10	Q502	L4	R321	H8	R556	E3	R7V5	E10	ZD803	H11
C328	L9	C535	K2	C7Y4	D10	D102	B8	L301	L6	Q503	C2	R322	H8	R557	C5	R7V6	E10	ZD804	H11
C329	I8	C543	F2	C7Y5	E11	D103	A8	L302	F12	Q504	J5	R323	I7	R558	K4	R7V7	E11	ZD9F1	P1
C330	I8	C544	G2	C801	J11	D104	A8	L303	H9	Q514	E3	R324	H9	R559	K4	R7V8	E11	ZD9F2	P2
C331	G9	C545	F2	C805	M9	D105	A7	L304	H8	Q515	K4	R325	K7	R560	F3	R7Y9	E11	ZD9F3	P2
C332	H9	C546	D9	C806	J12	D106	A6	L305	I7	Q5P1	J2	R326	H9	R561	G6	R801	J11	ZD9F4	P2
C333	I7	C547	E1	C807	J11	D109	B6	L307	J10	Q5P2	J2	R327	H9	R562	G6	R802	J12	ZD9F5	O2
C334	I8	C551	F2	C808	K11	D110	A7	L501	K5	Q5P3	J2	R328	G11	R563	G2	R817	J12	ZD9F6	O2
C335	I9	C552	M2	C809	J12	D154	D9	L502	B2	Q5P4	K2	R329	F10	R564	M3	R818	H11		
C336	H9	C561	L3	C810	I12	D155	D9	L503	K4	Q5P5	K2	R330	G9	R566	G2	R819	H11		
C337	H8	C564	M3	C811	H12	D156	A4	L504	D3	Q5P6	K2	R331	G12	R567	K3	R820	G11		
C338	H9	C567	I5	C813	H12	D159	C4	L505	M3	Q551	K4	R334	L8	R568	K3	R821	H11		

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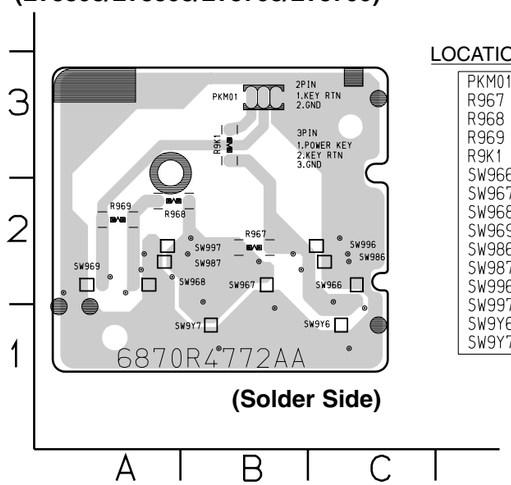
2. KEY (LEFT) P.C.Board

(LV3398/LV3598/LV3798/LV3799)

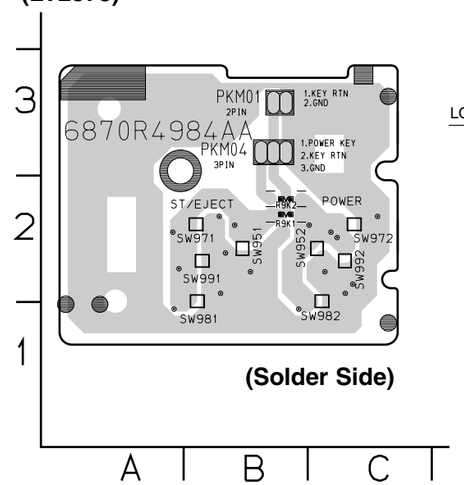


(Solder Side)

LOCATION GUIDE

PKM01	B3
R967	B2
R968	A2
R969	A2
R9K1	B3
SW966	C2
SW967	B2
SW968	A2
SW969	A2
SW986	C2
SW987	A2
SW996	C2
SW997	A2
SW9Y6	C1
SW9Y7	B1

(LV2578)



(Solder Side)

LOCATION GUIDE

PKM01	B3
PKM04	B3
R9K1	B2
R9K2	B2
SW951	B2
SW952	C2
SW971	B2
SW972	C2
SW981	B2
SW982	C2
SW991	B2
SW992	C2

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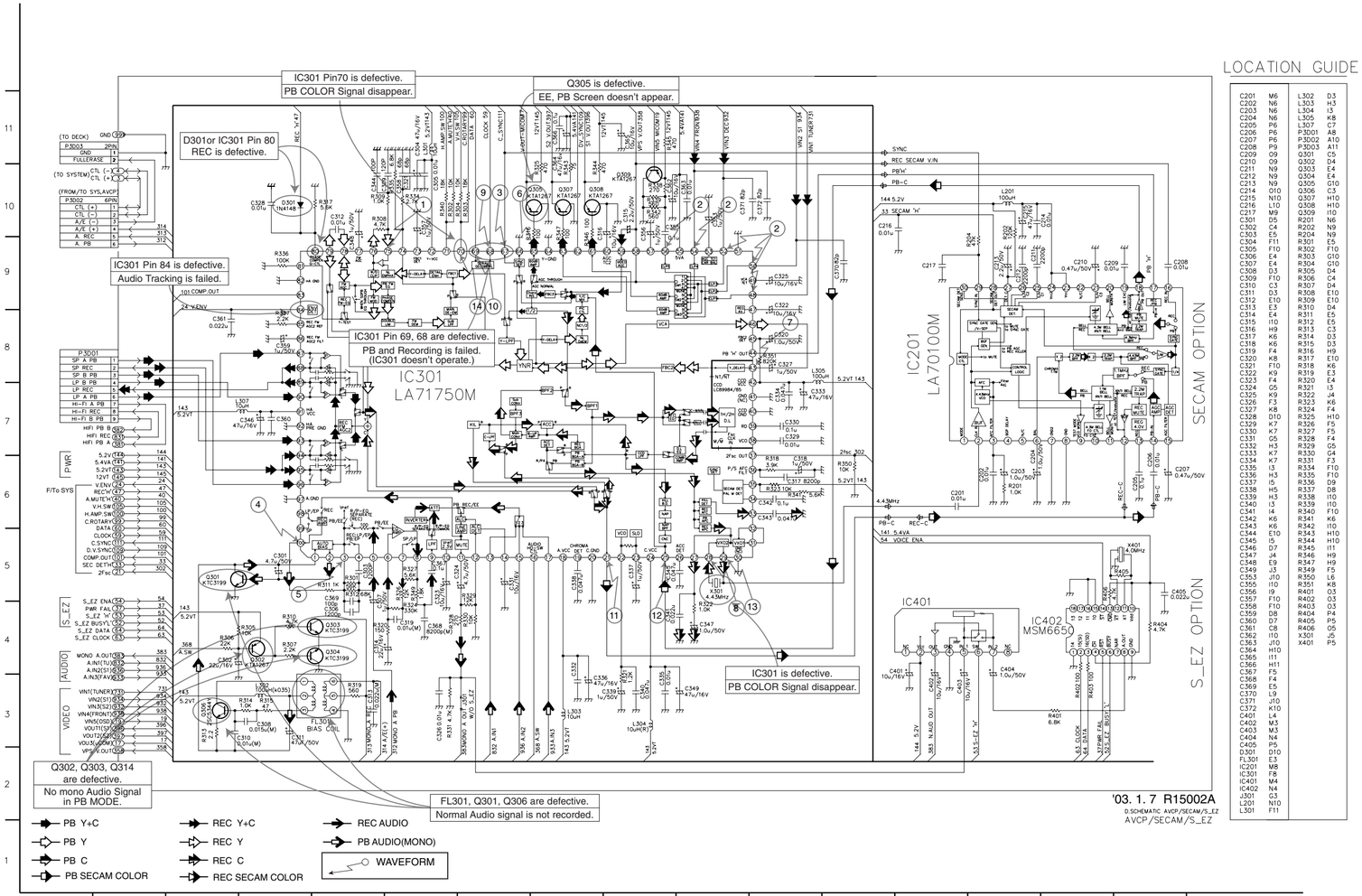
3. A/V, SECAM, VPS Circuit Diagram

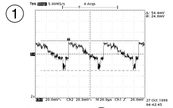


LOCATION GUIDE

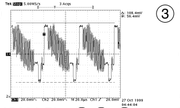
C201	M6	L302	D3
C202	N6	L303	H3
C203	N6	L304	L3
C204	N6	L305	K8
C205	P6	L307	C7
C206	P6	P3D01	A8
C207	P6	P3D02	A10
C208	P9	P3D03	A11
C209	O9	Q301	C5
C210	O9	Q302	D4
C211	N9	Q303	E4
C212	N9	Q304	E4
C213	N9	Q305	G10
C214	O10	Q306	C3
C215	N10	Q307	H10
C216	L10	Q308	H10
C217	M9	Q309	I10
C301	D5	R201	N6
C302	C4	R202	N9
C303	E5	R204	N9
C304	F11	R301	E5
C305	F10	R302	F10
C306	E4	R303	G10
C307	E4	R304	G10
C308	D3	R305	D4
C309	F10	R306	C4
C310	C3	R307	D4
C311	D3	R308	E10
C312	E10	R309	E10
C313	E3	R310	D4
C314	E4	R311	E5
C315	I10	R312	E5
C316	H9	R313	C3
C317	K6	R314	D3
C318	K6	R315	D3
C319	F4	R316	H9
C320	K8	R317	E10
C321	F10	R318	K6
C322	E10	R319	E3
C323	F4	R320	E4
C324	G5	R321	I3
C325	K9	R322	J4
C326	F3	R323	K6
C327	K8	R324	F4
C328	D10	R325	H10
C329	K7	R326	F5
C330	K7	R327	F5
C331	G5	R328	F4
C332	H3	R329	G5
C333	K7	R330	G4
C334	K7	R331	F3
C335	I3	R334	F10
C336	H3	R335	F10
C337	I5	R336	D9
C338	H5	R337	D8
C339	H3	R338	I10
C340	I3	R339	I10
C341	I4	R340	F10
C342	K6	R341	K6
C343	K6	R342	I10
C344	E10	R343	H10
C345	I5	R344	H10
C346	D7	R345	I11
C347	J4	R346	H9
C348	E9	R347	H9
C349	J3	R349	F5
C353	J10	R350	L6
C355	I10	R351	K8
C356	I9	R401	O3
C357	F10	R402	O3
C358	F10	R403	O3
C359	D8	R404	P4
C360	D7	R405	P5
C361	D8	R406	O5
C362	I10	X301	J5
C363	J10	X401	P5
C364	H10		
C365	I11		
C366	H11		
C367	F5		
C368	F4		
C369	E5		
C370	L9		
C371	J10		
C372	K10		
C401	L4		
C402	M3		
C403	M3		
C404	N4		
C405	P5		
D301	D10		
FL301	E3		
IC201	M8		
IC301	F8		
IC401	M4		
IC402	N4		
J301	G3		
L201	M10		
L301	F11		

WAVEFORM & VOLTAGE SHEET

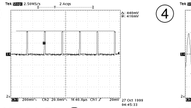
★ IC301 Oscilloscope Waveform



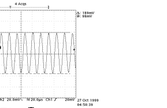
① IC301 Pin 75
PB mode
500mvp-p



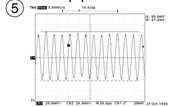
② IC301 Pins 48, 50, 52, 54, 56
Video in 1Vp-p



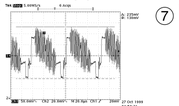
③ IC301 Pin 67
PB/REC mode
4.0Vp-p



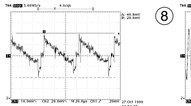
④ IC301 Pin 10
REC mode
1.1Vp-p



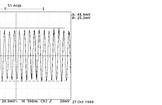
⑤ IC301 Pin 3
REC mode
2.0Vp-p



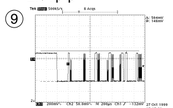
⑥ IC301 Pin 65
PB mode
2.02Vp-p



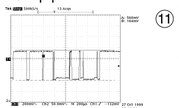
⑦ IC301 Pin 43
PB mode
400mVp-p



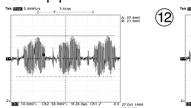
⑧ IC301 Pin 28
PB mode
400mVp-p



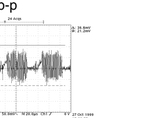
⑨ IC301 Pin 68
PB/REC mode
5Vp-p



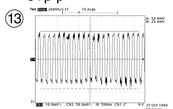
⑩ IC301 Pin 69
PB/REC mode
5Vp-p



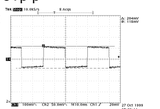
⑪ IC301 Pins 21
REC mode
340mVp-p



⑫ IC301 Pins 25
PB mode
300mVp-p



⑬ IC301 Pin 29
PB mode
400mVp-p



⑭ IC301 Pin 70
PB mode
3.6Vp-p

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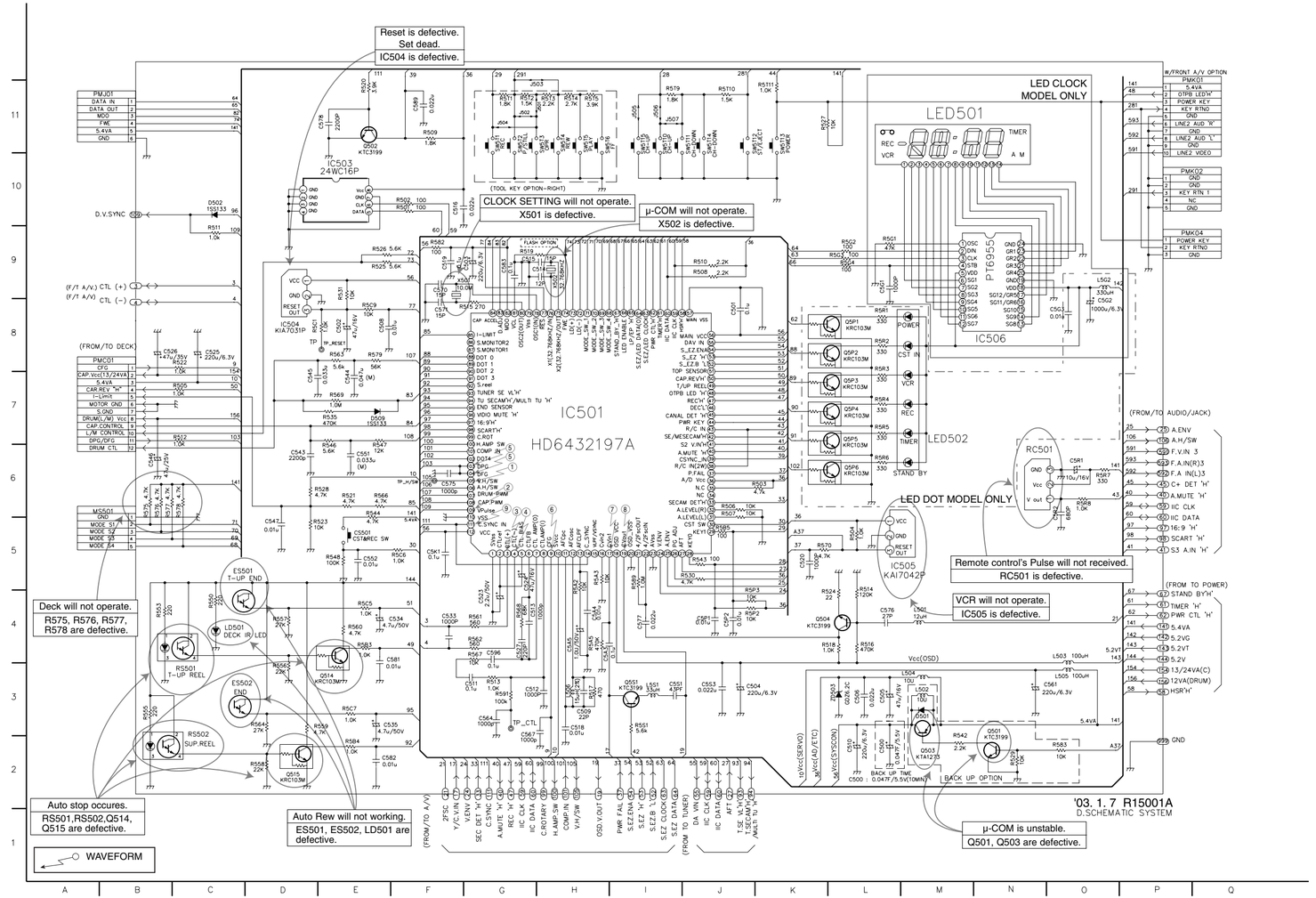
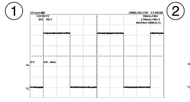
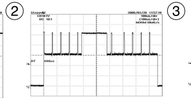
4. System Circuit Diagram



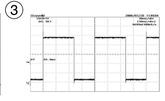
* IC501 Waveform Photographs



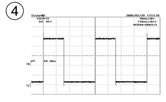
① V.HSW
(IC501 Pin 105)
1V/10mS
REC/PB MODE



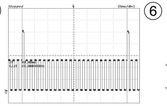
② DV.SYNC
(IC501 PIN 109)
1V/100uS
QUE/REV MODE



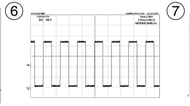
③ CTL(+)
(IC501 Pin 3)
1V/10mS



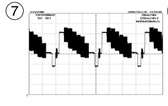
④ CTL(-)
(IC501 Pin4)
1V/10mS



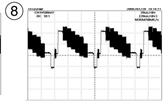
⑤ DFG/FG
(IC501 PIN 103,104)
1V/10mS
REC/PB MODE



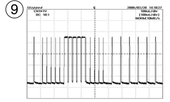
⑥ CFG
(IC501 Pin9)
1V/10mS



⑦ V.IN
(IC501 Pin 17)
500mV/20uS



⑧ V.OUT
(IC501 Pin 19)
500mV/20uS
EE/PB MODE



⑨ C.SYNC
(IC501 Pin 111)
1.0V/100uS
EE/PB MODE

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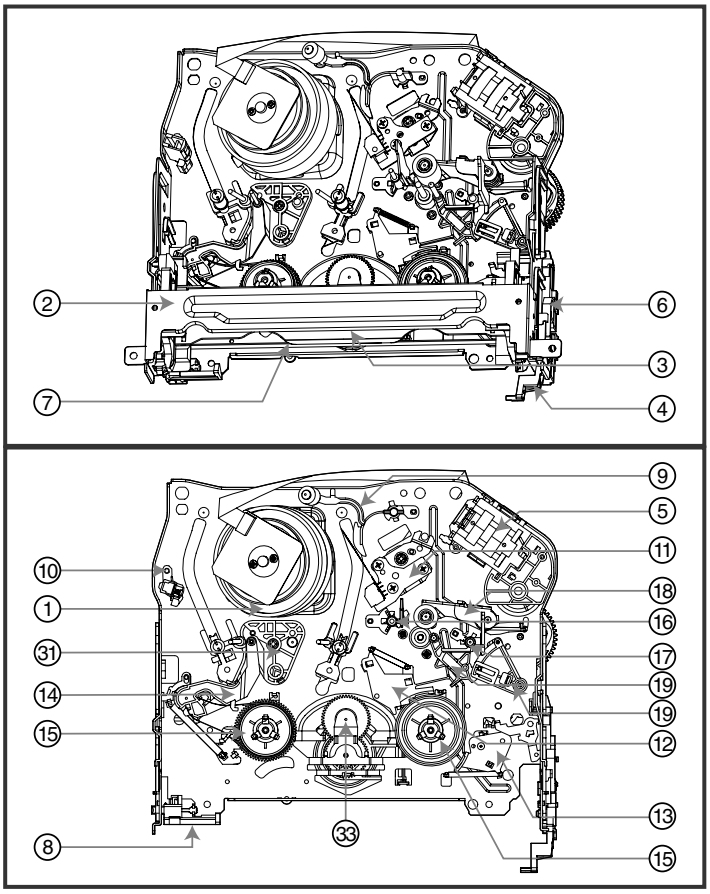
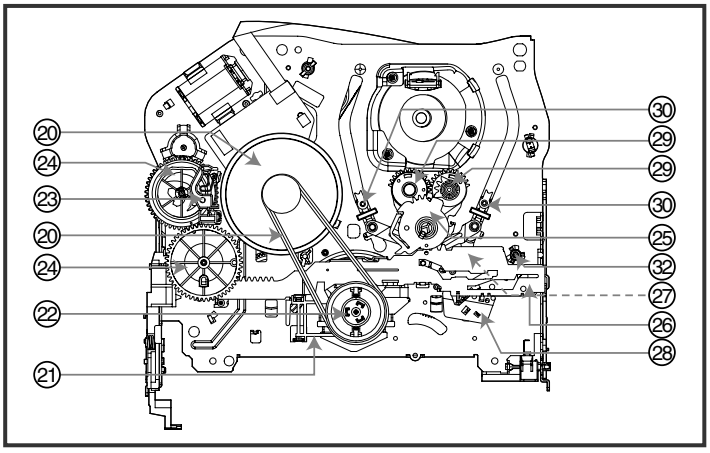
DECK MECHANISM PARTS LOCATIONS

• Top View



• Bottom View



NOTE : When reassembly perform the procedure in the reverse order.

1) When reassembling, confirm Mechanism and Mode Switch Alignment Position (Refer to Page 4-13)
2) When disassembling, the Parts for Starting No. Should be removed first.

Procedure / Starting No.		Part	Fixing Type	Figure	View
	1	Drum Assembly	3 Screw	A-1	T
	2	Plate Top	2 Hook	A-2	T
2	3	Holder Assembly CST	Chassis Hole	A-2	T
2	4	Opener Door	Chassis Hole	A-2	T
	5	Bracket Assembly L/D Motor	3 Hook	A-2	T
2,3,4	6	Gear Assembly Rack F/L	1 Hook, Chassis Hole	A-2	T
2,3,4,6	7	Arm Assembly F/L	Chassis Hole	A-2	T
	8	Lever Assembly S/W	1 Hook	A-2	T
	9	Arm Assembly Cleaner	Chassis Embossing	A-3	T
	10	Head F/E	Chassis Embossing	A-3	T
	11	Base Assembly A/C Head	1 Screw	A-3	T
2,3	12	Brake Assembly T	1 Hook	A-4	T
2,3	13	Brake Assembly RS	1 Hook	A-4	T
2,3	14	Arm Assembly Tension	2 Hook	A-4	T
2,3,12,13, 14	15	Reel S/Reel T		A-4	T
	16	Base Assembly P4	Chassis Embossing	A-5	T
	17	Opener Lid	Chassis Embossing	A-5	T
17	18	Arm Assembly Pinch	Shaft	A-5	T
17	19	Lever T/Up / Arm T/Up	1 Hook	A-5	T
17,18	20	Belt Capstan/Motor Capstan	3 Screw	A-6	B
	21	Lever F/R	Locking Tab	A-6	B
20, 21	22	Clutch Assembly D35	Washer	A-6	B
	23	Brake Assembly Capstan	Locking Tab	A-6	B
	24	Gear Drive/Gear Cam	Washer/Hook	A-7	B
	25	Gear Sector	1 Hook	A-7	B
20,21,23, 24,25	26	Plate Slider	Shaft Guide	A-7	B
20,21,23, 24,25,26	27	Lever Tension	1 Hook	A-7	B
2,3,14,20, 21,25,23, 24,26	28	Lever Spring	Locking Tab	A7	B
25	29	Gear Assembly P2/Gear Assembly P3	Boss	A-8	B
2,3,14,25, 29	30	Base Assembly P2/Base Assembly P3	Chassis Slot	A-8	B
2,3,14,25, 29	31	Base Loading	1 Screw	A-9	T
2,3,14	32	Base Tension	Chassis Embossing	A-9	B
2,3,20,21, 22	33	Arm Assembly Idler	Locking Tab	A-9	T

T:Top, B:Bottom

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DECK MECHANISM DISASSEMBLY

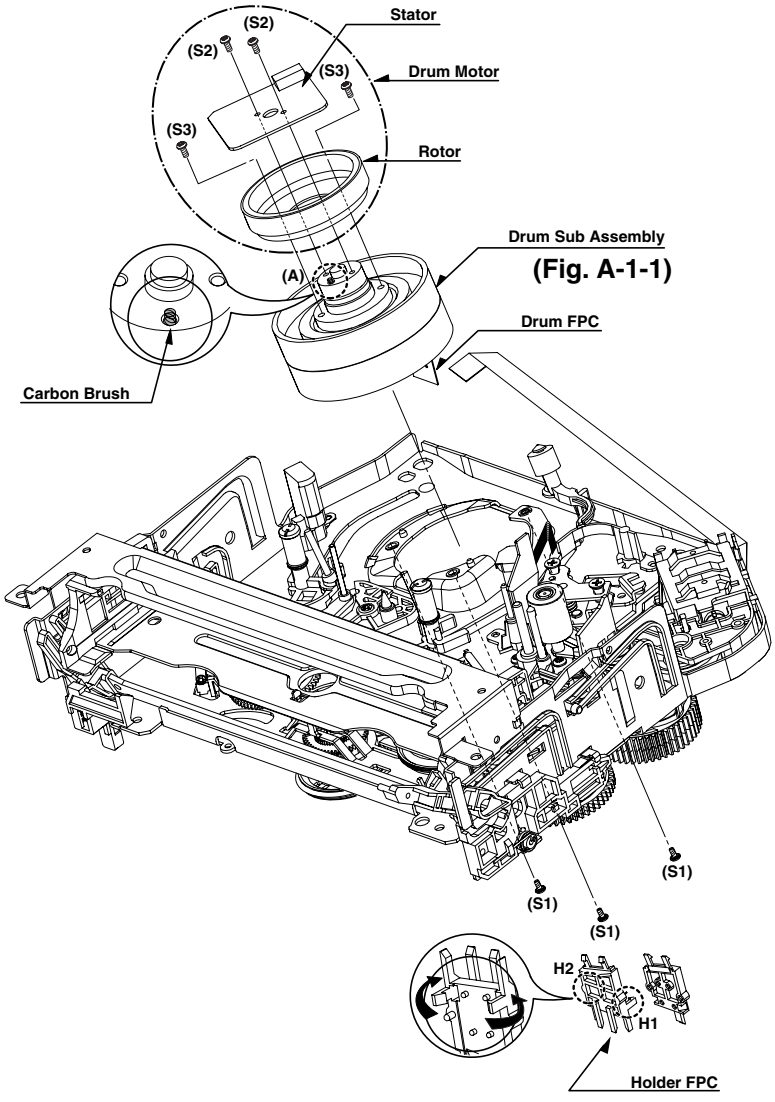


Fig. A-1

1. Drum Assembly (Fig. A-1-1)

1) Unplug the Drum FPC Connector.
2) Remove three Screws(S1) on bottom side and separate the Drum assembly.
3) Unhook (H1), (H2) and separate the Holder FPC and Cap FPC.

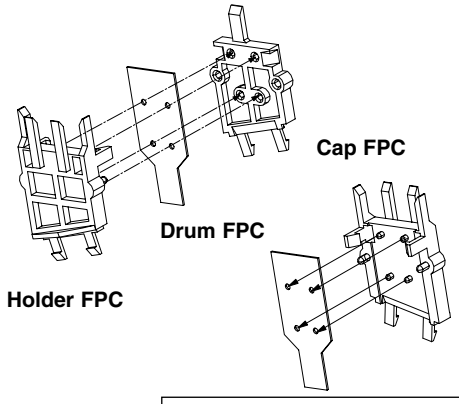
1-1. Drum Motor

1) Remove two Screws(S2) and disassemble the Stator of the Drum Motor.
2) Remove two Screws(S3) and separate the Rotor of the Drum Motor from the Drum Sub assembly.

NOTE

When reassembling, confirm (A) portion of the Drum Sub assembly whether the Carbon Brush is in there or not.

(Fig. B-1)



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DECK MECHANISM DISASSEMBLY

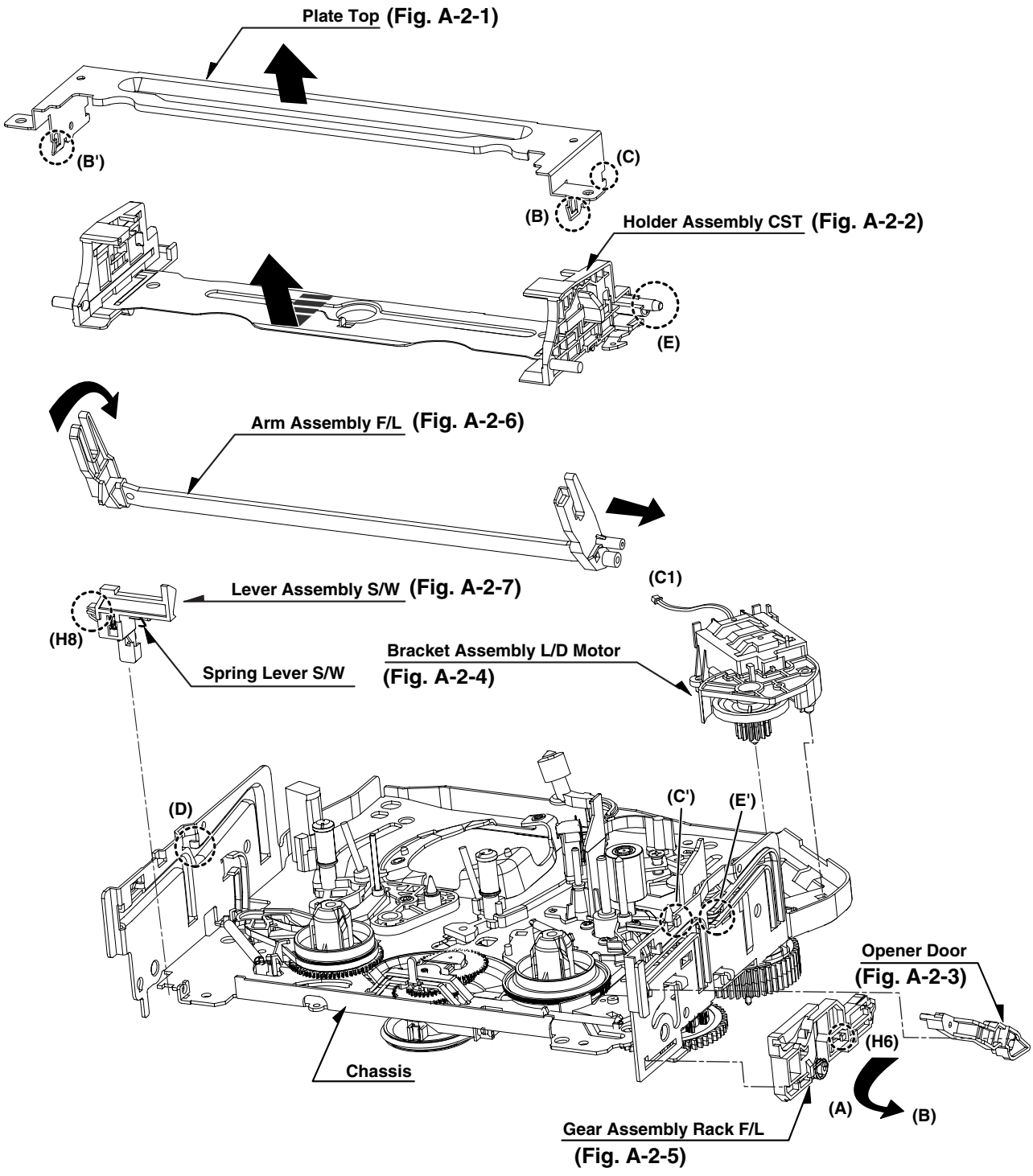

Fig. A-2

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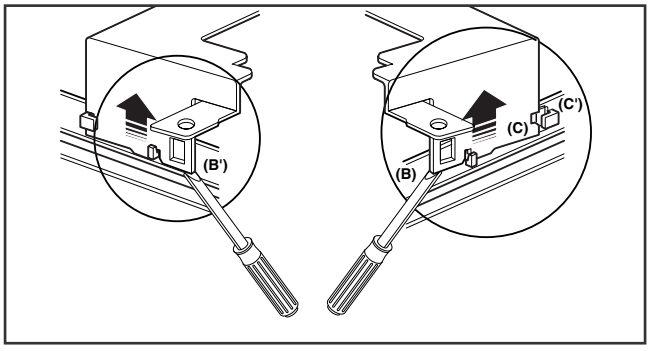
2. Plate Top (Fig. A-2-1)

1) Pull the (B) portion of the Plate Top back in direction of arrow and separate the right side of it.
2) pull the (B') portion of the Plate Top back in direction of arrow and separate the left side of it.
(Used tools : (-) type driver, anything tool with sharp point or flat point.)

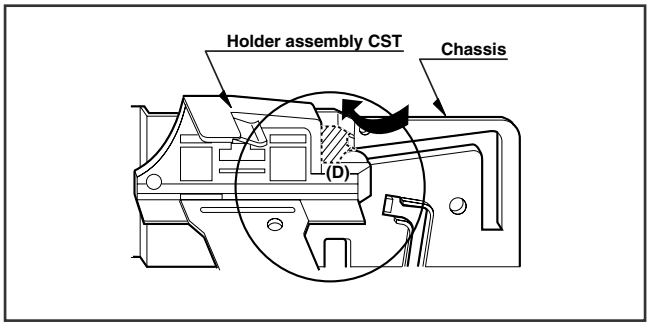
NOTE

(1) When reassembling, push the Plate Top after alignment the two position(C), (C') as below Fig.



3. Holder Assembly CST (Fig.A-2-2)

1) Move the Holder Assembly CST in direction of arrow and separate the left side of it first through the (D) position of the Chassis.



2) Disassemble the right side of the Holder Assembly CST from each guided hole of the Chassis.

NOTE

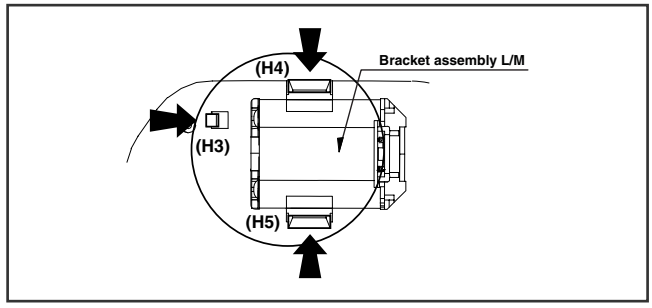
When reassembling, insert the (E) part of the Holder Assembly CST in the (E') hole of the Chassis first and assemble the left side of it.

4. Opener Door (Figure. A-2-3)

1) Turn the Opener Door clockwise and remove it through the guide hole of the Chassis.

5. Bracket Assembly L/D Motor (Fig. A-2-4)

1) Unplug the Connector(C1).
2) Unhook three Hooks(H3, H4, H5) on bottom side of the Chassis, lift up the Bracket Assembly L/M and disassemble the Bracket Assembly L/D Motor.

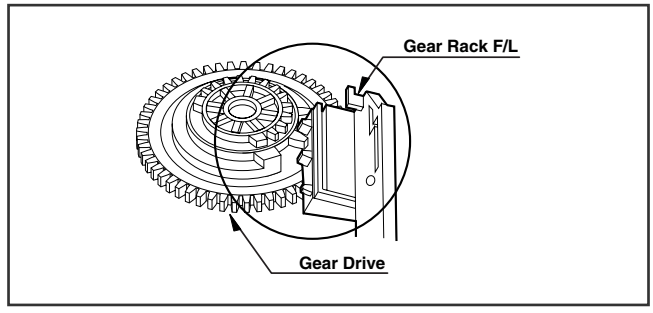


6. Gear Assembly Rack F/L (Fig. A-2-5)

1) Move the Gear Assembly Rack F/L in direction of arrow(A) and unhook the Hook(H6) pulling back in front.
2) Separate the Gear Rack F/L in direction of arrow(B).

NOTE

When reassembling, align the gear part of the Gear Assembly Rack F/L with the Gear Drive as below Fig.

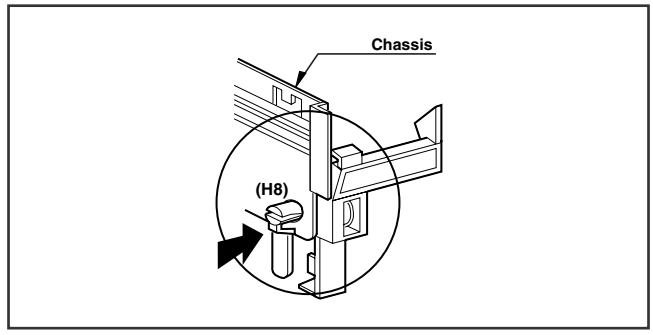


7. Arm Assembly F/L (Fig. A-2-6)

1) Move the Arm Assembly F/L in direction of arrow and separate the left side of it first.
2) Disassemble the Arm Assembly F/L from each guided hole of the Chassis.

8. Lever Assembly S/W(Fig. A-2-7)

1) Unhook the Hook(H8) in the left side of the Chassis and remove the Lever Assembly S/W.



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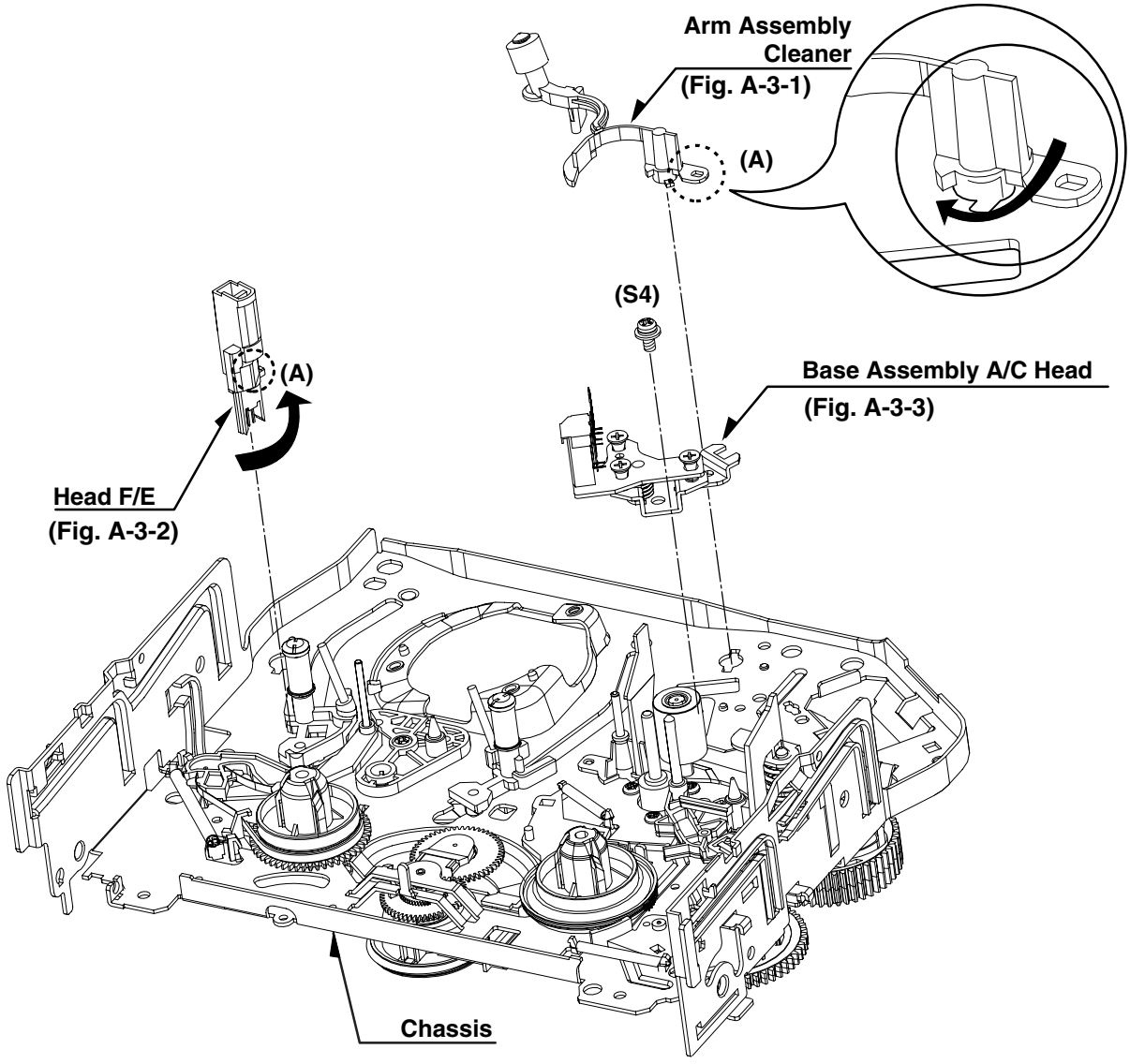

Fig. A-3

9. Arm Assembly Cleaner (Fig. A-3-1)

1) Breakaway the (A) portion as Fig. A-3-1 from the embossing of the Chassis, turn the Arm assembly Cleaner to clockwise direction and lift it up.

10. Head F/E (Fig. A-3-2)

1) Breakaway the (A) portion of the Head F/E from the embossing of the Chassis, turn it to counterclockwise direction and lift it up.

11. Base Assembly A/C Head (Fig. A-3-3)

1) Remove the Screw(S4) and lift the Base Assembly A/C Head up.

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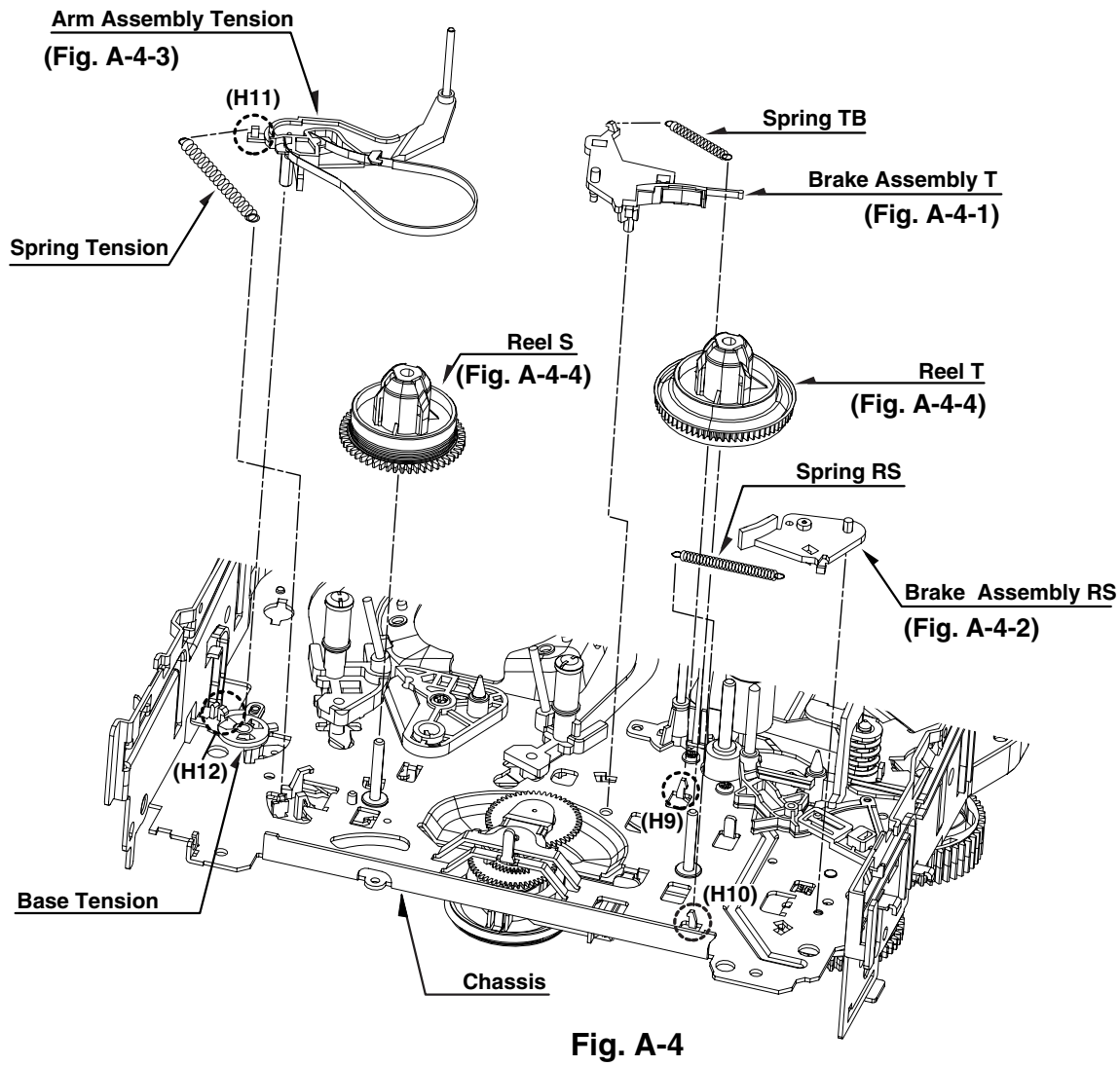


Fig. A-4

12. Brake Assembly T (Fig. A-4-1)

1) Unhook the Spring TB from the Hook(H9) of the Chassis.
2) Lift the Brake Assembly T up.

13. Brake Assembly RS (Fig. A-4-2)

1) Unhook the Spring RS from the Hook(H10) of the Chassis.
2) Lift the Brake Assembly T up.

14. Arm Assembly Tension (Fig. A-4-3)

1) Unhook the Spring Tension from the Hook(H11) of the Arm Assembly Tension.
2) Unhook the Hook(H12) of the Base Tension and lift the Arm Assembly Tension up.

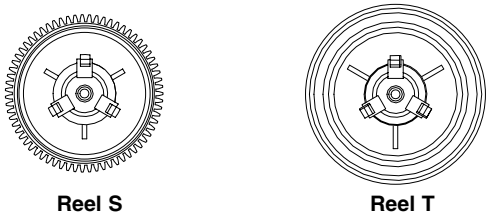
NOTE

Difference for Springs

	Spring TB
	Spring RS Color (Black)
	Spring Tension

15. Reel S / Reel T (Fig. A-4-4)

1) Difference for Reel S / Reel T



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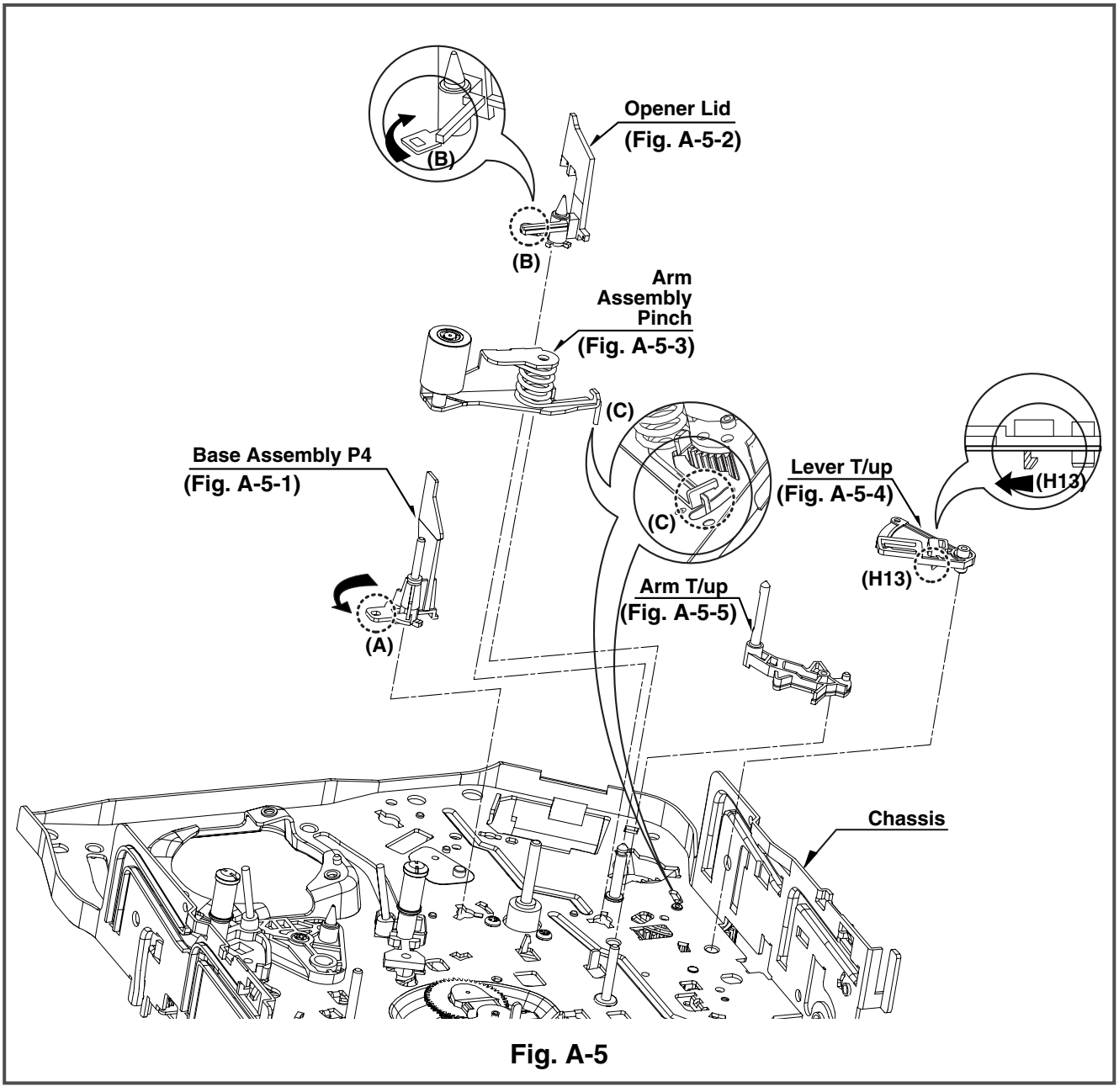

Fig. A-5

16. Base Assembly P4 (Fig. A-5-1)

1) Breakaway the (A) portion of the Base Assembly P4 from the embossing of the Chassis.
2) Turn the Base Assembly P4 to counterclockwise direction and lift it up.

17. Opener Lid (Fig. A-5-2)

1) Breakaway the (B) portion of the Opener Lid from the embossing of the Chassis.
2) Turn the Opener Lid to clockwise direction and lift it up.

18. Arm Assembly Pinch (Fig. A-5-3)

1) Lift the Arm Assembly Pinch up.

NOTE

When reassembling, confirm the (C) portion of the Arm Assembly Pinch is inserted to the Chassis hole correctly as Fig.

19. Lever T/up (Fig. A-5-4)/ Arm T/up (Fig. A-5-5)

1) Unhook the Hook(H13) of the bottom Chassis and lift the Lever T/up up.
2) Lift the Arm T/up up.

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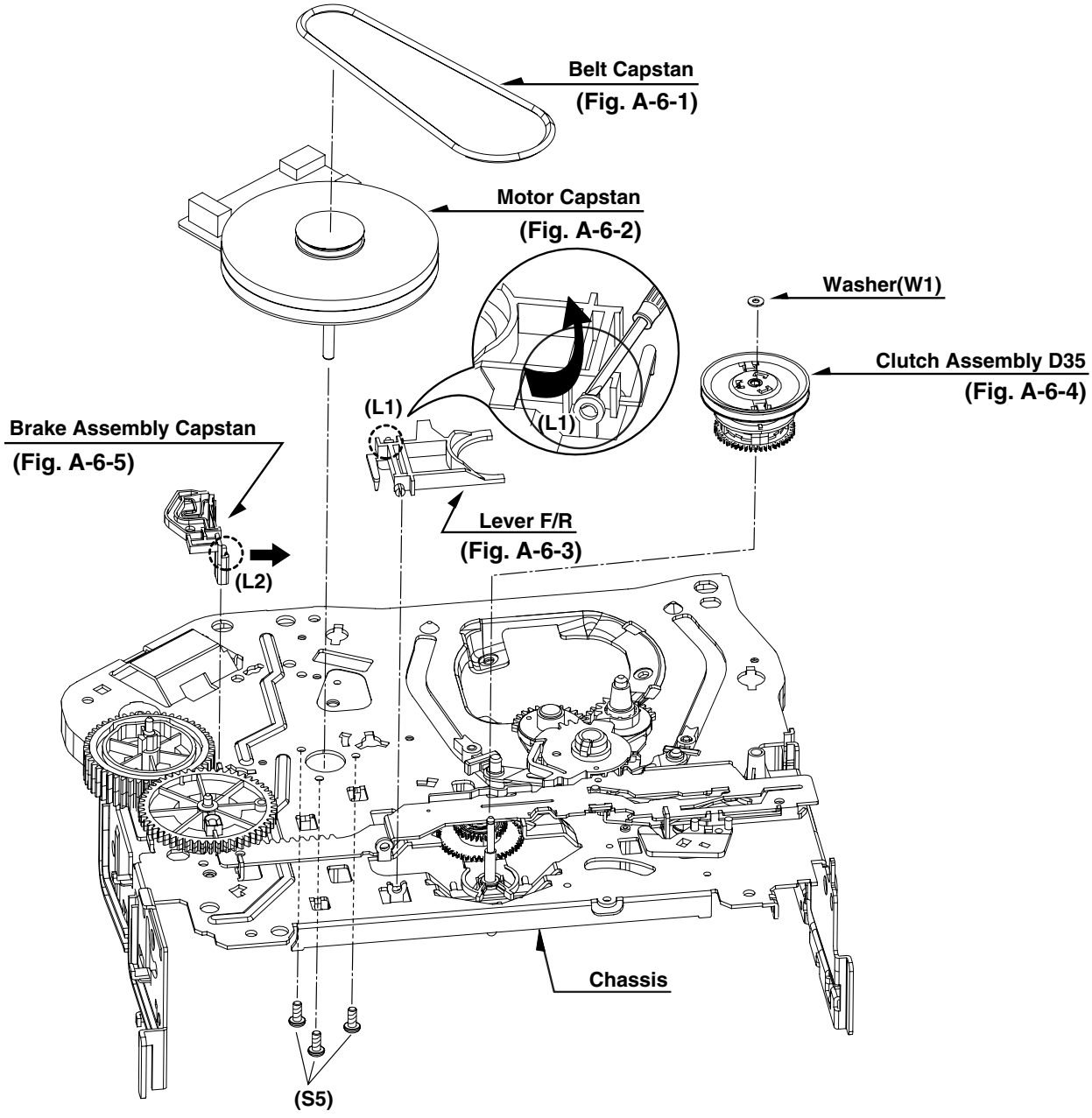

Fig. A-6

20. Belt Capstan (Fig. A-6-1)/ Motor Capstan (Fig. A-6-2)

1) Remove the Belt Capstan.
2) Remove the three Screws(S5) on bottom Chassis and lift the Motor Capstan up.

21. Lever F/R (Fig. A-6-3)

1) Unlock the Locking Tab(L1) as Fig. A-6-3 and lift the Lever F/R up.

22. Clutch Assembly D35 (Fig. A-6-4)

1) Remove the Washer(W1) and lift the Clutch Assembly D35 up.

23. Brake Assembly Capstan (Fig. A-6-5)

1) Pull the Locking Tab(L2) back in direction of arrow and lift it up.

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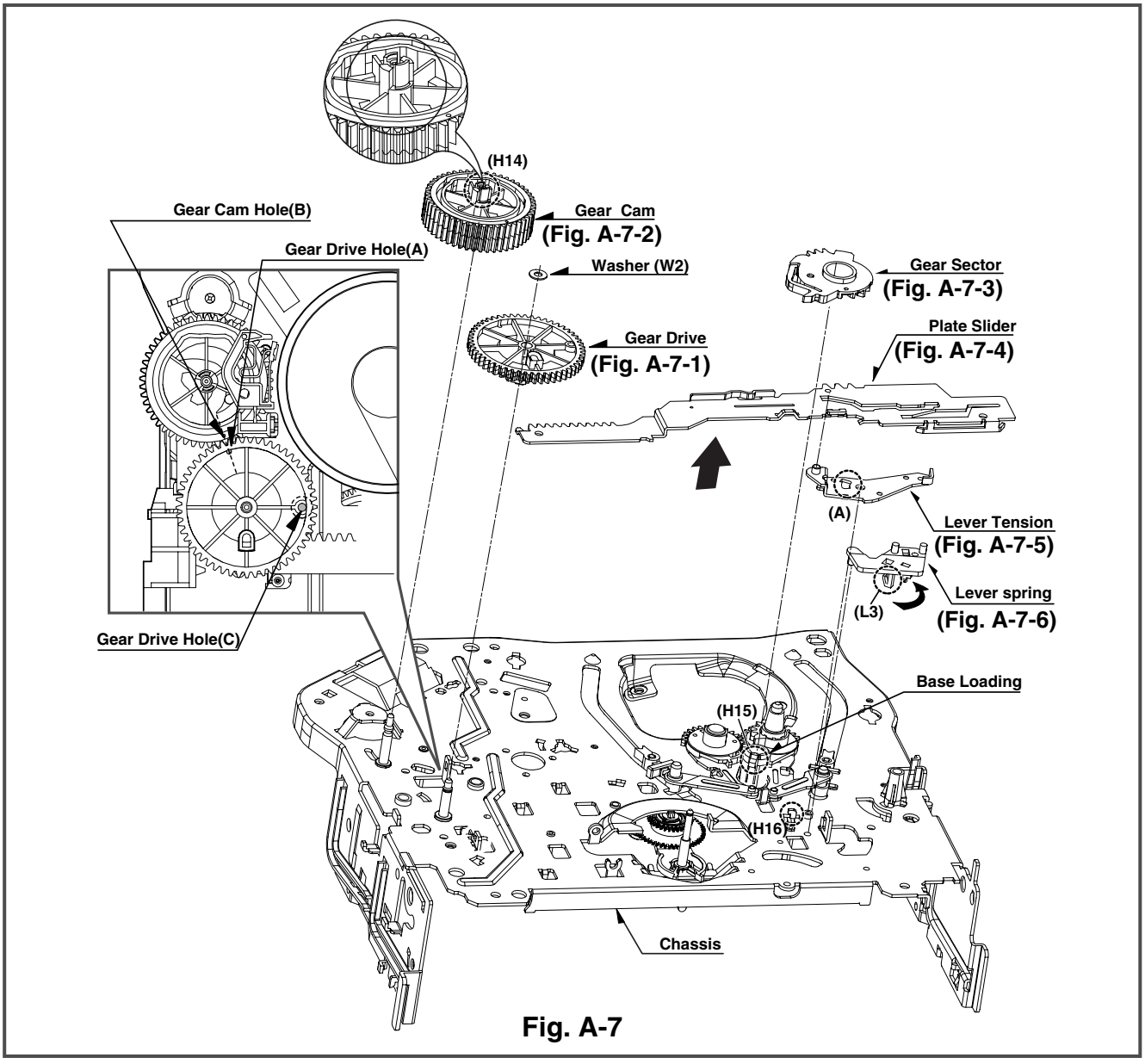

Fig. A-7

24. Gear Drive (Fig. A-7-1)/ Gear Cam (Fig. A-7-2)

1) Remove the Washer(W2) and lift the Gear Drive up.
2) Unhook the Hook(H14) of the Gear Cam and lift the Gear Cam up.

NOTE

When reassembling, align the Gear Drive Hole(A) and the Gear Cam Hole(B) in a straight line after the Gear Drive Hole(C) is aligned with the Chassis Hole as Fig.

25. Gear Sector (Fig. A-7-3)

1) Unhook the Hook(H15) of the Base Loading on bottom Chassis and lift the Gear Sector up.

26. Plate Slider (Fig. A-7-4)

1) Just lift the Plate Slider up.

27. Lever Tension (Fig. A-7-5)

1) Unhook the (A) portion of the Lever Tension from the Hook(H16) of the Chassis.
2) Turn the Lever Tension to counterclockwise direction and lift it up.

28. Lever Spring (Fig. A-7-6)

1) Unlock the Locking Tab(L3) of the bottom Chassis and lift the Lever Spring up.

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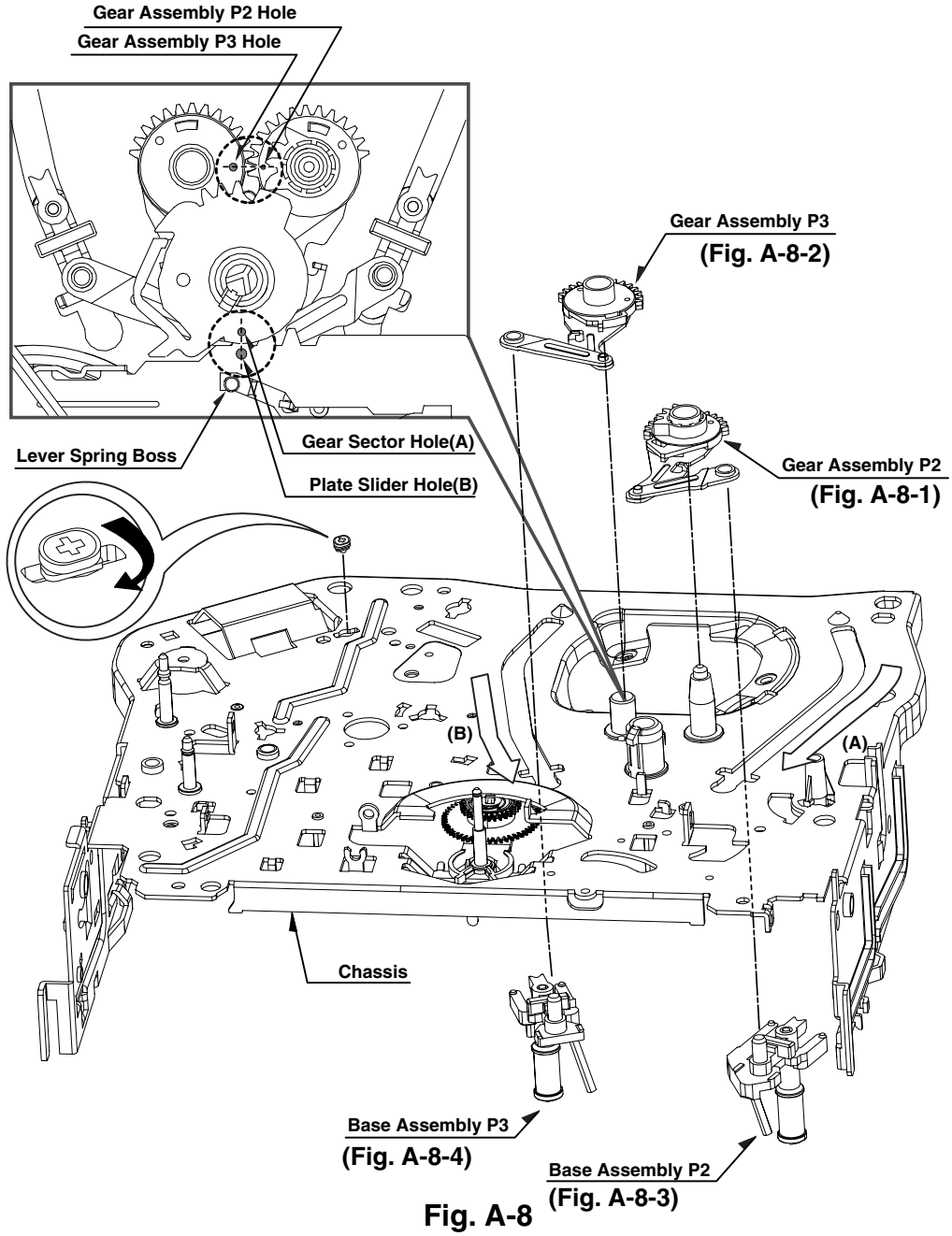

Fig. A-8

29. Gear Assembly P2 (Fig. A-8-1)/ Gear Assembly P3 (Fig. A-8-2)

1) Just lift the Gear Assembly P2 up.
2) Just lift the Gear Assembly P3 up.

NOTE

When reassembling, align the two holes of the Gear Assembly P2 and P3 in a straight line after confirmation whether the Gear Sector Hole(A) and the Plate Slider Hole(B) are aligned or not as Fig.

30. Base Assembly P2 (Fig. A-8-3)/ Base Assembly P3 (Fig. A-8-4)

1) Move the Base Assembly P2 in direction of arrow(A) along the guide hole of the Chassis and disassemble it on bottom side.
2) Move the Base Assembly P3 in direction of arrow(B) along the guide hole of the Chassis and disassemble it on bottom side.

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DECK MECHANISM DISASSEMBLY

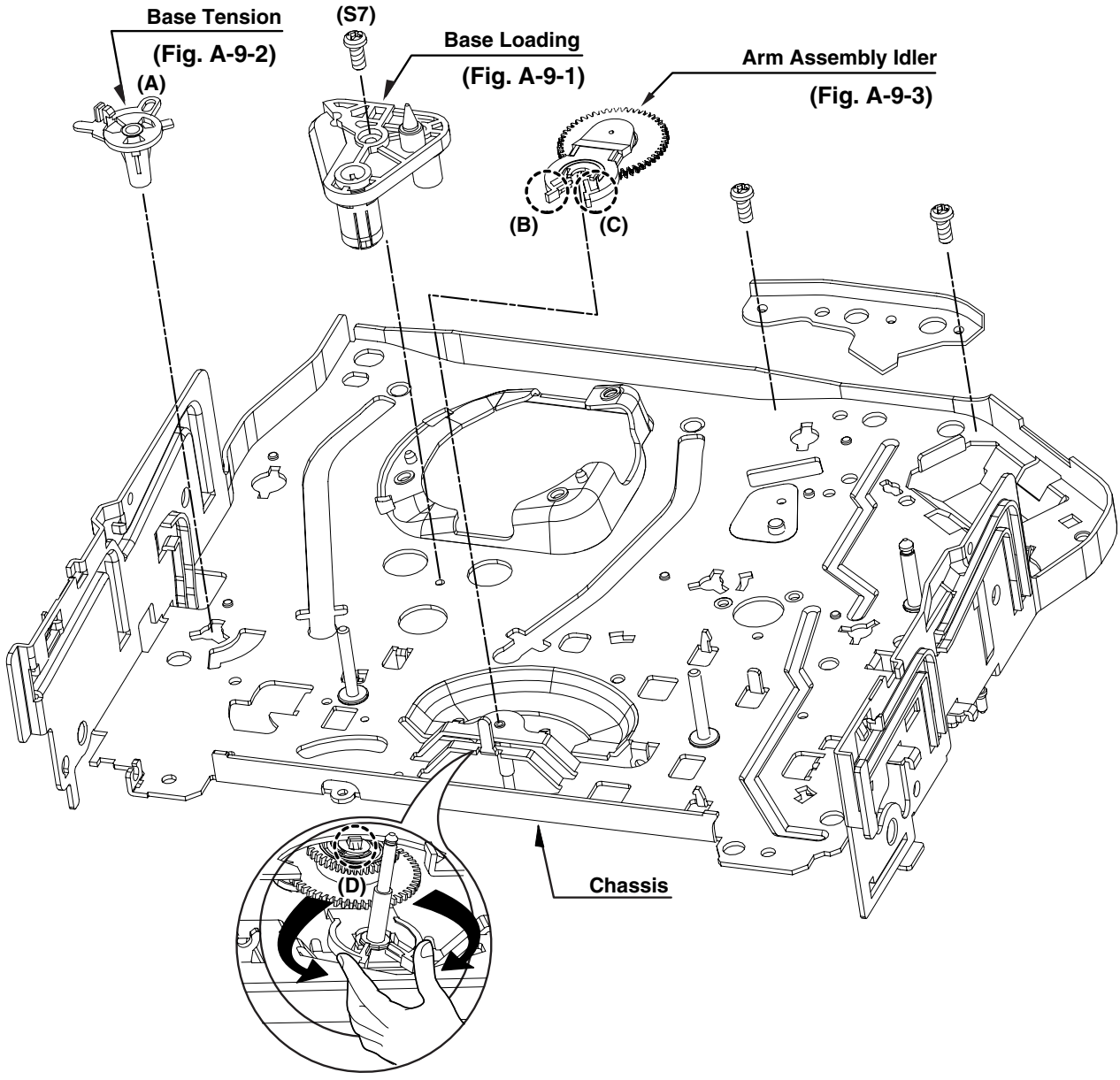

Fig. A-9

31. Base Loading (Fig. A-9-1)

1) Remove the Screw(S7).
2) Lift the Base Loading up.

32. Base Tension (Fig. A-9-2)

1) Breakaway the (A) portion of the Base Tension from the embossing of the Chassis.
2) Turn the Base Tension to counterclockwise direction and lift it up.

33. Arm Assembly Idler (Fig. A-9-3)

1) Make narrower the two parts, (B) and (C), as Fig. A-9-3.
2) Lift the Arm assembly Idler up.

NOTE

When disassembling, be careful not to be caught the (D) part by the Chassis as Fig.

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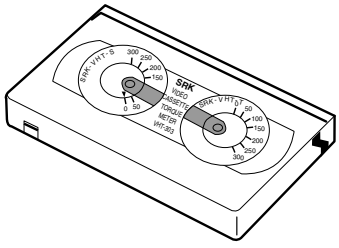
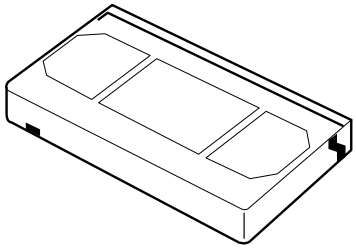
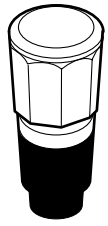
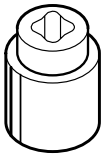
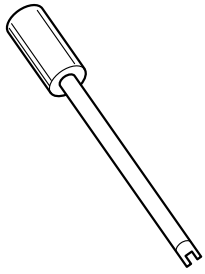
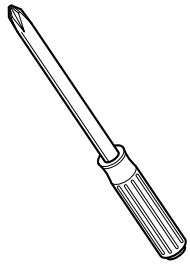
DECK MECHANISM ADJUSTMENT

• Tools and Fixfures for Service

1. Cassette Torque Meter SRK-VHT-303(Not SVC part) Parts No: D00-D006 	2. Alignment Tape Parts No NTSC: DTN-001 PAL:DTN-0002 	3. Torque Gauge 600g.Cm ATG Parts No:D00-D002 
4. Torque Gauge Adaptor Parts No:D09-R001 	5. Post Height Adjusting Driver Parts No:DTL-0005 	6. + Type Driver (ø 5) 

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DECK MECHANISM ADJUSTMENT

1. Mechanism Alignment Position Check

Purpose:To determine if the Mechanism is in the correct position, when a Tape is ejected.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Check Point
• Blank tape	• Eject Mode (with Cassette ejected)	• Mechanism and Mode Switch Position

1) Turn the Power S/W on and eject the Cassette by pressing the Eject Button.
2) Remove the Top Cover and Plate Assembly Top, visually check if the Gear Cam Hole is aligned with the Chassis Hole as below Fig. C-2.
3) IF not, rotate the Shaft of the Loading Motor to either clockwise or counterclockwise until the alignment is as below Fig. C-2.
4) Remove the Screw which fixes the Deck Mechanism and Main Frame and confirm if the Gear Cam is aligned with the Gear Drive as below Fig. C-1(A).
5) Confirm if the Mode S/W on the Main P.C.Board is aligned as below Fig. C-1(B).
6) Remount the Deck Mechanism on the Main P.C.Board and check each operation.

CHECK DIAGRAM

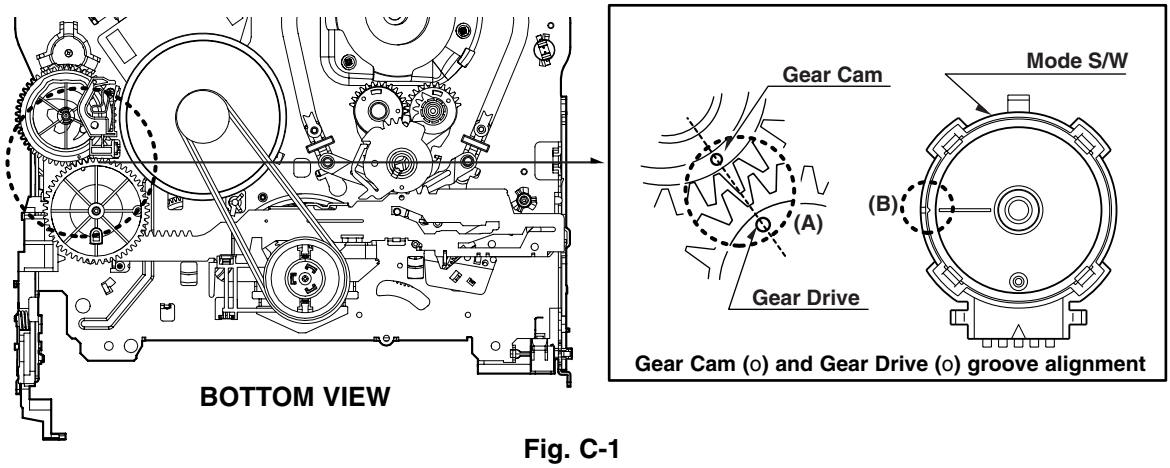

Fig. C-1

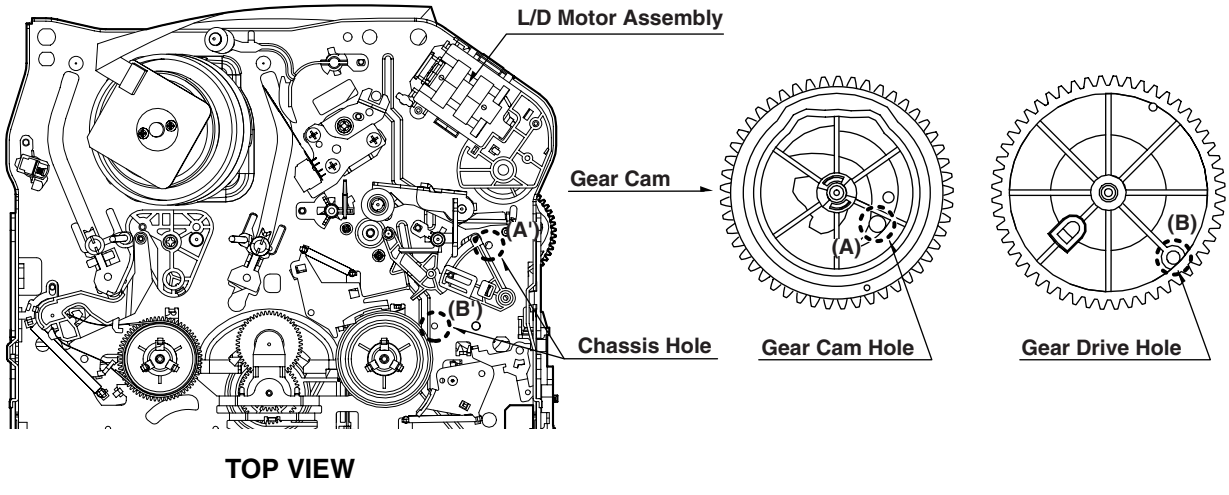

Fig. C-2

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DECK MECHANISM ADJUSTMENT

2. Preparation for Adjustment (To set the Deck Mechanism of the loading state without inserting a cassette tape).

1) Unplug the power cord from the AC outlet.
2) Disassemble the Top Cover and Plate Assembly Top.
3) Plug the power cord into the AC outlet.
4) Turn the power S/W on and push the Lever Stopper of the Holder Assembly CST to the back for loading the cassette without tape.
Cover the holes of the End Sensors at the both sides of the Chassis to prevent a light leak.
Then the Deck Mechanism drives to the Stop Mode.
In this case, the Deck Mechanism can accept inputs of each mode, however the Rewind and Review operation can not be performed for more than a few seconds because the Take-up Reel Table is in the Stop State and can not be detected the Reel Pulses.

3. Checking Torque

Purpose: To insure smooth transport of the tape during each mode of operation.
If the tape transport is abnormal, then check the torque as indicated by the chart below.

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Checking Method
• Torque Gauge(600g/cm ATG) • Torque Gauge Adaptor • Cassette Torque Meter SRK-VHT-303	• Play (FF) or Review (REW) Mode	• Perform each Deck Mechanism mode without inserting a cassette tape(Refer to above No.2 Preparation for Adjustment). • Read the measurement of the Take-up or Supply Reels on the Cassette Torque Meter(Fig. C-3-2). • Attach the Torque Gauge Adaptor to the Torque Gauge and then read the value of it(Fig. C-3-1).

Item	Mode	Test Equipment	Measurement Reel	Measurement Values
Fast Forward Torque	Fast Forward	Cassette Torque Gauge	Take-Up Reel	More than 400g/cm
Rewind Torque	Rewind	Cassette Torque Gauge	Supply Reel	More than 400g/cm
Play Take-Up Torque	Play	Cassette Torque Meter	Take-Up Reel	40~100g/cm
Review Torque	Review	Cassette Torque Meter	Supply Reel	120~210g/cm

NOTE:

The values are measured by using a Torque Gauge and Torque Gauge Adaptor with the Torque Gauge affixed.

NOTE:

The torque reading to measure occurs when the tape abruptly changes direction from Fast Forward to Rewind Mode, when quick braking is applied to both Reels.

• Torque Gauge (600g.cm ATG)

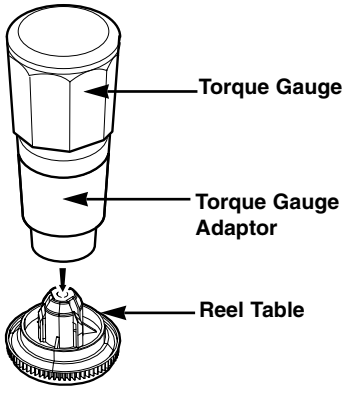

Fig. C-3-1

• Cassette Torque Meter (SRK-VHT-303)

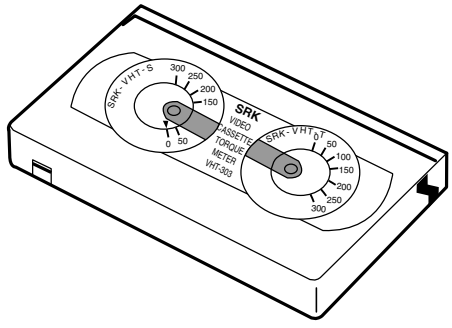

Fig. C-3-2

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DECK MECHANISM ADJUSTMENT

4.Guide Roller Height Adjustment

Purpose: To regulate the height of the tape so that the bottom of the tape runs along the tape guide line on the Lower Drum.

4-1. Preliminary Adjustment

Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Adjustment Point
• Post Height Adjusting Driver	• Play or Review Mode	• Guide Roller Height Adjustment screws on the Supply and Take-Up Guide Rollers.

Adjustment Procedure

1) Confirm if the tape runs along the tape guide line of the Lower Drum.
2) If the tape runs the bottom of the guide line, turn the Guide Roller Height Adjustment Screw to clockwise direction.
3) If it runs the top, turn to counterclockwise direction.
4) Adjust the height of the Guide Roller to be guided to the guide line of the Lower Drum from the starting and ending point of the Drum.

ADJUSTMENT DIAGRAM

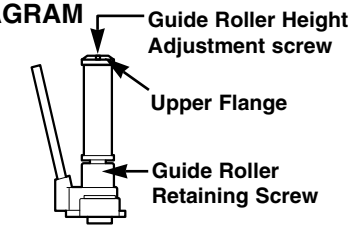


Fig. C-4-1

4-2. Precise Adjustment

Test Equipment/Fixture	Test Equipment Connection Points	Test Conditions VCR(VCP) State	Adjustment Point
• Oscilloscope • Alignment Tape • Post Height Adjusting Driver	• CH-1:PB RF Envelope • CH-2:NTSC: SW 30Hz PAL: SW 25Hz • Head Switching Output Point • RF Envelope Output Point	• Play an Alignment Tape	• Guide Roller Height Adjustment Screws

Adjustment Procedure

1) Play an Alignment Tape after connecting the probe of the Oscilloscope to the RF Envelope Output Test Point and Head Switching Output Test Point.
2) Tracking Control(in PB Mode) : Center Position(When this adjustment is performed after the Drum Assembly has been replaced, set the Tracking Control so that the RF Output is Maximum).
3) Height Adjustment Screw : Flatten the RF waveform. (Fig. C-4-2)
4) Turn(Move) the Tracking Control(in PB Mode) clockwise and counterclockwise.(Fig. C-4-3)
5) Check that any drop of RF Output is uniform at the start and end of the waveform.

NOTE

If the adjustment is excessive or insufficient the tape will jam or fold.

Waveform Diagrams

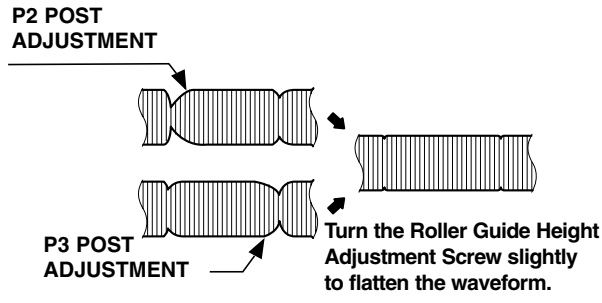


Fig. C-4-2

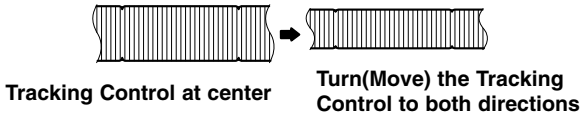
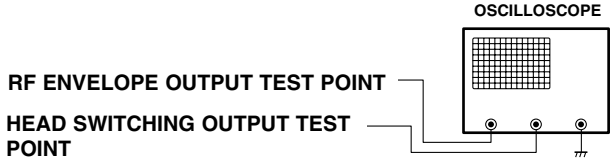


Fig. C-4-3

Connection Diagram



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DECK MECHANISM ADJUSTMENT

5. Audio/Control (A/C) Head Adjustment

Purpose: To insure that the tape passes accurately over the Audio and Control Tracks in exact alignment of the both Record and Playback Modes.

5-1. Preliminary Adjustment (Height and Tilt Adjustment)

Perform the Preliminary Adjustment, when there is no Audio Output Signal with the Alignment Tape.

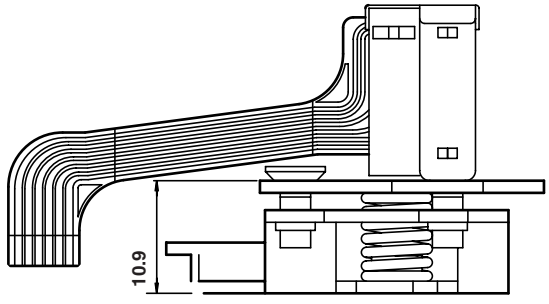
Test Equipment/ Fixture	Test Conditions (Mechanism Condition)	Adjustment Point
• Blank Tape • Screw Driver(+) Type 5mm	• Play the blank tape	• Tilt Adjustment Screw(C) • Height Adjustment Screw(B) • Azimuth Adjustment Screw(A)

Adjustment Procedure/Diagrams

1) Initially adjust the Base Assembly A/C Head as shown Fig. C-5-1 by using the Height Adjustment Screw(B).
2) Play a blank tape and observe if the tape passes accurately over the A/C Head without tape curling or folding.
3) If folding or curling is occured then adjust the Tilt Adjustment Screw(C) while the tape is running to resemble Fig. C-5-3.
4) Reconfirm the tape path after Playback about 4~5 seconds.

NOTE

Ideal A/C head height occurs when the tape runs between 0.2~0.25mm above the bottom edge of the A/C Head core.



A/C Head Base

Fig. C-5-1

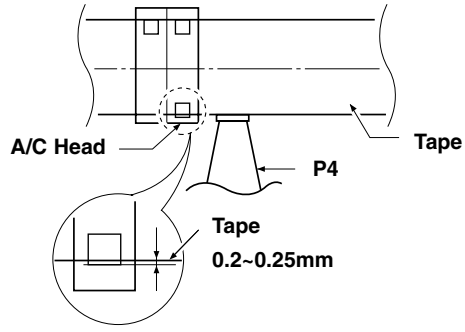
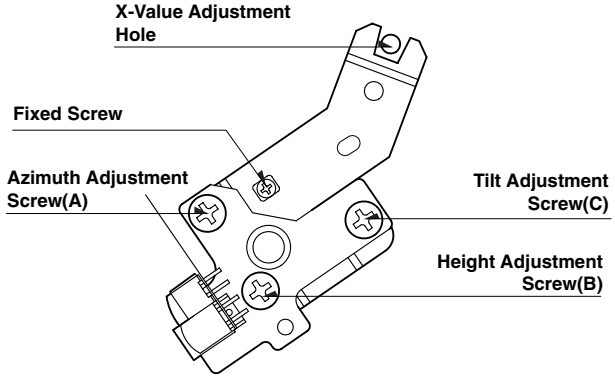


Fig. C-5-3



A/C Head Assembly

Fig. C-5-2

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DECK MECHANISM ADJUSTMENT

5-2. Confirm that the tape passes smoothly between the Take-up Guide and Pinch Roller(using a mirror or the naked eye).

1) After completing Step 5-1.(Preliminary Adjustment), check that the tape passes around the Take-up Guide and Pinch Roller without folding or curling at the top or bottom.
   (1) If folding or curling is observed at the bottom of the Take-up Guide then slowly turn the Tilt Adjustment Screw(C) in the clockwise direction.
   (2) If folding or curling is observed at the top of it then slowly turn the Tilt Adjustment Screw(C) in the counterclockwise direction.

NOTE:

Check the RF envelope after adjusting the A/C Head, if the RF waveform differs from Fig. C-5-4, performs Precise Adjustment to flat the RF waveform.

5-3. Precise Adjustment (Azimuth adjustment)

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Point
• Oscilloscope • Alignment Tape(SP) • Screw Driver(+) Type 5mm	• Audio output jack	• Play an Alignment Tape 1KHz, 7KHz Sections	• Azimuth Adjustment Screw(A) • Height Adjustment Screw(B)

Adjustment Procedure

1) Connect the probe of the oscilloscope to Audio Output Jack.
2) Alternately adjust the Azimuth Adjustment Screw(A) and the Tilt Adjustment Screw(C) for maximum output of the 1KHz and 7KHz segments, while maintaining the flattest envelope differential between the two frequencies.

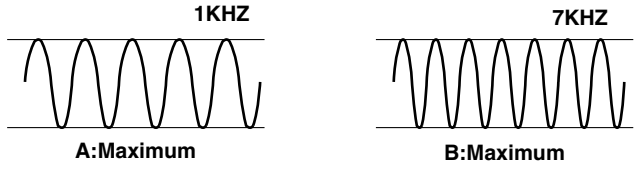
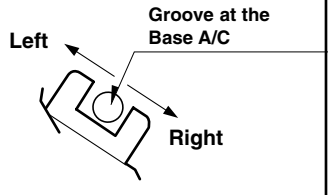


Fig. C-5-4

6. X-Value Adjustment

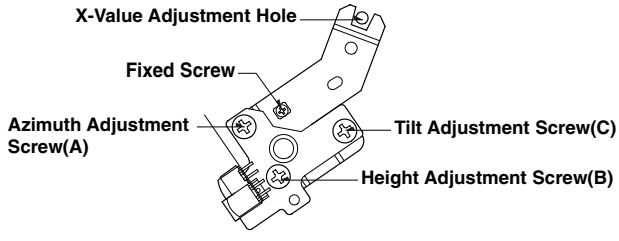
Purpose: To obtain compatibility with the other VCR(VCP) Models.

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Point
• Oscilloscope • Alignment Tape(SP only) • Screw Driver(+) Type 5mm	• CH-1: PB RF Envelope • CH-2: NTSC: SW 30Hz PAL: SW 25Hz • Head Switching Output Test Point • RF Envelope Output Test Point	• Play an Alignment Tape	

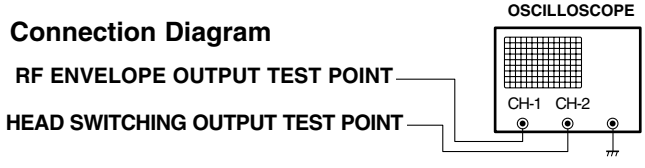
Adjustment Procedure

1) Release the Automatic Tracking to run long enough for tracking to complete it's cycle.
2) Loosen the Fixed Mounting Screw and move the Base Assembly A/C Head in the direction as shown in the diagram to find the center of the peak that allows for the maximum waveform envelope.
   This method should allow the 31µm Head to be centrally located over the 58µm tape track.
3) Tighten the Base Assembly A/C Head mounting Screw.

Adjustment Diagram



Connection Diagram



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DECK MECHANISM ADJUSTMENT

7. Adjustment after Replacing Drum Assembly (Video Heads)

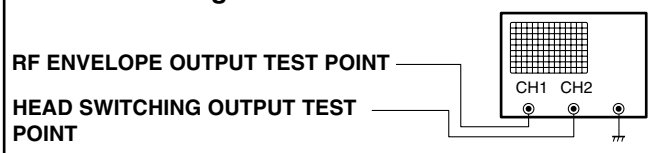
Purpose: To correct for shift in the Roller Guide and X value after replacing the Drum.

Test Equipment/ Fixture	Connection Point	Test Conditions (Mechanism Condition)	Adjustment Points
• Oscilloscope • Alignment Tapes • Blank Tape • Post Height Adjusting Driver • Screw Driver(+) Type 5mm	• CH-1: PB RF Envelope • CH-2: NTSC: SW 30Hz PAL: SW 25Hz • Head Switching Output Test Point • RF Envelope Output Test Point	• Play the Blank Tape • Play an Alignment Tape	• Guide Roller Precise Adjustment • Switching Point • Tracking Preset • X-Value

Checking/Adjustment Procedure

Play a blank tape and check for tape curling or creasing around the Roller Guide. If there is a problem then follow the procedure 4. "Guide Roller Height" and 5. "Audio Control(A/C) Head Adjustment".

Connection Diagram



Waveform

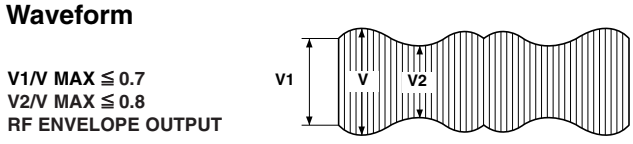


Fig. C-7

8. Check the Tape Travel after Reassembling Deck Assembly.

8-1. Checking Audio and RF Locking Time during playback and after CUE or REV (FF/REW)

Test Equipment/ Fixture	Specification	Connection Points	Test Conditions (Mechanism Condition)
• Oscilloscope • Alignment Tapes(with 6H 3KHz Color Bar Signal) • Stop Watch	• RF Locking Time: Less than 5 sec. • Audio Locking Time:Less than 10sec	• CH-1: PB RF Envelope • CH-2: Audio Output • RF Envelope Output Point • Audio Output Jack	• Play an Alignment Tape (with 6H 3kHz Color Bar Signal)

Checking Procedure

Play an Alignment Tape then change the operating mode to CUE or REV and confirm if the unit meets the above listed specifications.

NOTES:

1) CUE is the forward search mode
2) REV is the backward search mode
3) Refer to the Play mede

8-2. Checking for tape curling or jamming

Test Equipment/ Fixture	Specification	Test Conditions (Mechanism Condition)
• T-160 Tape • T-120 Tape	• Be sure there is no tape jamming or curling at the begining, middle or end of the tape.	• Run the CUE, REV, Play mode at the beginning and the end of the tape.

Checking Procedure

1) Confirm that the tape runs smoothly around the roller guides, Drum and A/C Head Assemblies while abruptly changing operating modes from Play to CUE or REV. This is to be checked at the begining, middle and end sections of the tape.
2) Confirm that the tape passes over the A/C Head Assembly as indicated by proper audio reproduction and proper tape counter performance.

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MAINTENANCE/INSPECTION PROCEDURE

1. Check before starting repairs

The following faults can be remedied by cleaning and oiling. Check the needed lubrication and the conditions of cleanliness in the unit.
Check with the customer to find out how often the unit is used, and then determine that the unit is ready for inspection and maintenance. Check the following parts.

Phenomenon	Inspection	Replacement	
Color beats	Dirt on Full-Erase Head	o	F/E Head
Poor S/N, no color	Dirt on Video Head	o	Video Head
Vertical or Horizontal jitter	Dirt on Video Head Dirt on tape transport system	o	
Low volume, Sound distorted	Dirt on Audio/Control Head	o	A/C Head
Tape does not run. Tape is slack	Dirt on Pinch Roller	o	Pinch Roller Belt Capston
In Review and Unloading (off mode), the tape is rolled up loosely.	Clutch Assembly D35 torque reduced	o	Clutch Assembly D35
	Cleaning Drum and transport system	Fig. C-9-3	

NOTE

If locations marked with **o** do not operate normally after cleaning, check for wear and replace.
See the EXPLODED VIEWS at the end of this manual as well as the above illustrations and see the Greasing (Page 4-21, 22) for the sections to be lubricated and greased.

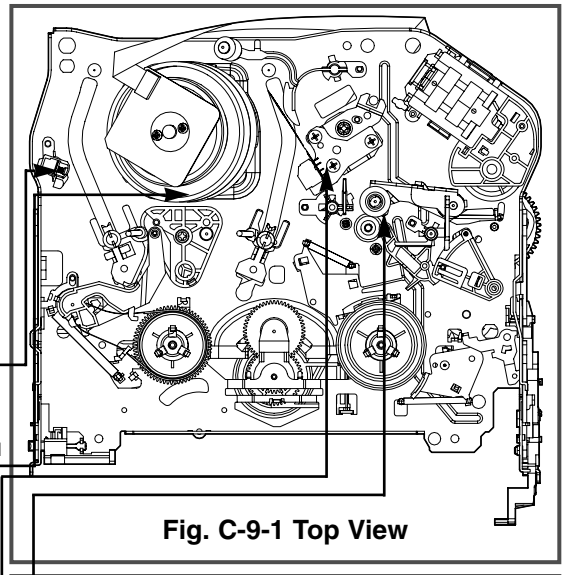

Fig. C-9-1 Top View

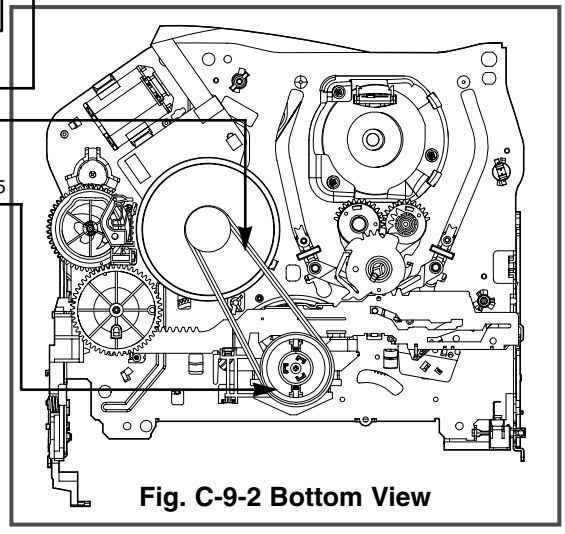

Fig. C-9-2 Bottom View

*** No. (1)~(12) Indicates the Tape Path to be traveled from Supply Reel to Take-up Reel.**

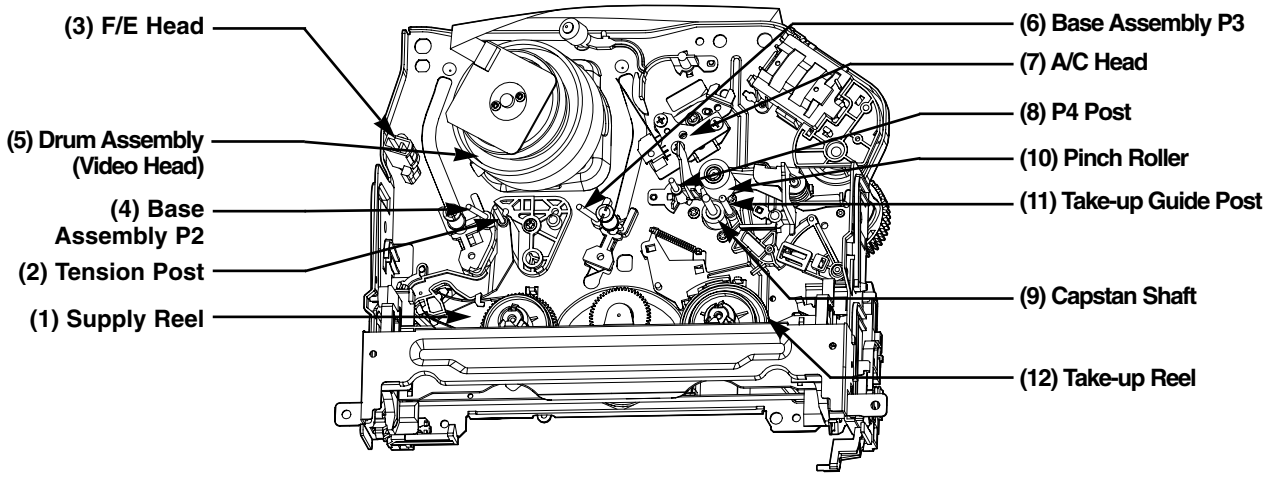

Fig. C-9-3 Tape Transport System

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MAINTENANCE/INSPECTION PROCEDURE

2. Required Maintenance

The recording density of a VCR(VCP) is much higher than that of an audio tape recorder. VCR(VCP) components must be very precise, at tolerances of 1/1000mm, to ensure compatibility with the other VCRs. If any of these components are worn or dirty, the symptoms will be the same as if the part is defective. To ensure a good picture, periodic inspection and maintenance, including replacement of worn out parts and lubrication, is necessary.

3. Scheduled Maintenance

Schedules for maintenance and inspection are not fixed because they vary greatly according to the way in which the customer uses the VCR(VCP), and the environment in which the VCR(VCP) is used.
But, in general home use, a good picture will be maintained if inspection and maintenance is made every 1,000 hours. The table below shows the relation between time used and inspection period.

Table 1

When inspection is necessary / Average hours used per day	About 1 year	About 18 months	About 3 years
One hour	■	■	■
Two hours	■	■	
Three hours	■		

4. Supplies Required for Inspection and Maintence

(1) Grease : Kanto G-311G (Blue) or equivalent
(2) Isopropyl Alcohol or equivalent
(3) Cleaning Patches
(4) Grease : Kanto G-381(Yellow)

5. Maintenance Procedure

5-1) Cleaning

(1) Cleaning video head
First use a cleaning tape. If the dirt on the head is too stubborn to remove by tape, use the cleaning patch. Coat the cleaning patch with Isopropyl Alcohol. Touch the cleaning patch to the head tip and gently turn the head(rotating cylinder) right and left.
(Do not move the cleaning patch vertically. Make sure that only the buckskin on the cleaning patch comes into contact with the head. Otherwise, the head may be damaged.)
Thoroughly dry the head. Then run the test tape. If Isopropyl Alcohol remains on the video head, the tape may be damaged when it comes into contact with the head surface.
(2) Clean the tape transport system and drive system, etc, by wiping with a cleaning patch wetted with Isopropyl Alcohol.

NOTES:

① It is the tape transport system which comes into contact with the running tape. The drive system consists of those parts which moves the tape.
② Make sure that during cleaning you do not touch the tape transport system with excessive force that would cause deformation or damage to the system.

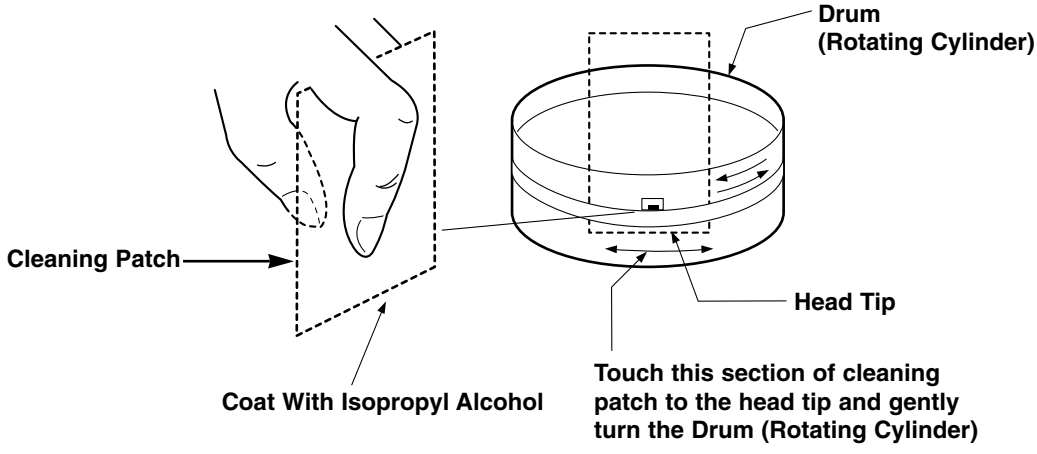
Drum
(Rotating Cylinder)
Cleaning Patch
Head Tip
Coat With Isopropyl Alcohol
Touch this section of cleaning patch to the head tip and gently turn the Drum (Rotating Cylinder)

Fig. C-9-4

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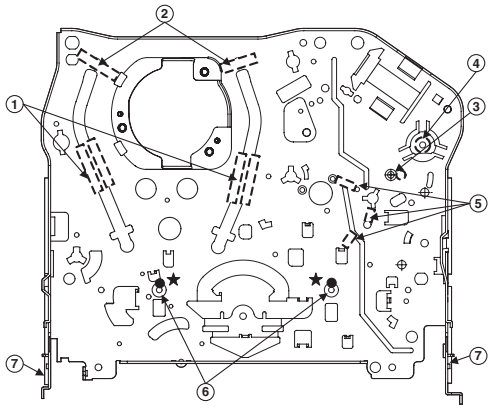
5-2) Greasing

(1) Greasing guidelines
Apply grease, with a cleaning patch. Do not use excess grease. It may come into contact with the tape transport or drive system. Wipe excessive grease and clean with cleaning patch wetted in Isopropyl Alcohol.

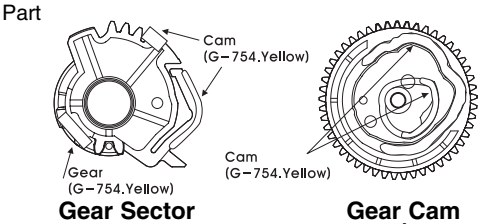
NOTE:Greasing Points

1) Loading Path Inside & Top side
2) Base Assembly P2, P3 stopper
3) Shaft
4) L/D Motor Gear Wheel Part
5) Arm Take-up Rubbing Sections
6)Reel S,T shaft(G381:Yellow)
7) Arm Assembly F/L Rotating Sections

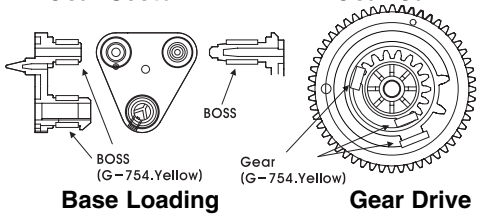


Chassis (Top)

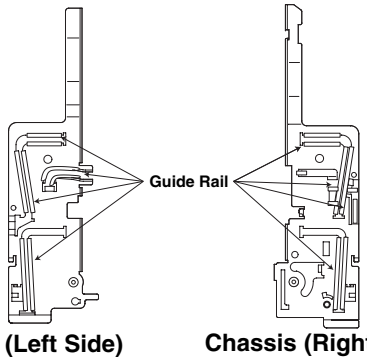
Gear Part



Gear Sector **Gear Cam**



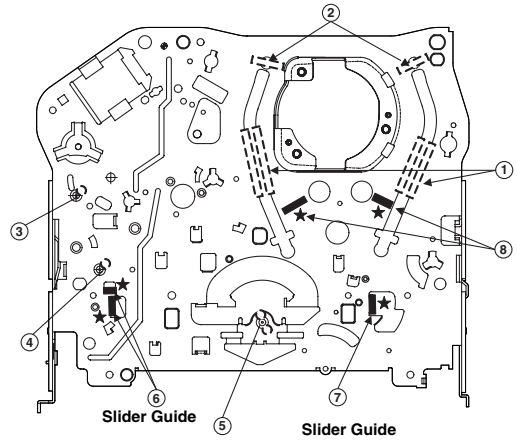
Base Loading **Gear Drive**



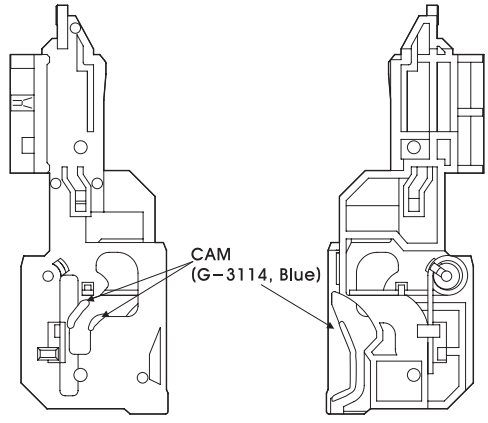
Chassis (Left Side) **Chassis (Right Side)**

(2) Periodic greasing
Grease specified locations every 5,000 hours.

1) Loading Path Inside & Top side
2) Base Assembly P2,P3 stopper
3) Shaft
4) Shaft
5) Clutch Assembly D35 Shaft
6) Plate Slider Guide Sections
7) Plate Slider Guide Sections
8) Gear Assembly P2, P2 Rubbing Sections



Chassis (Bottom)



Gear Rack F/L

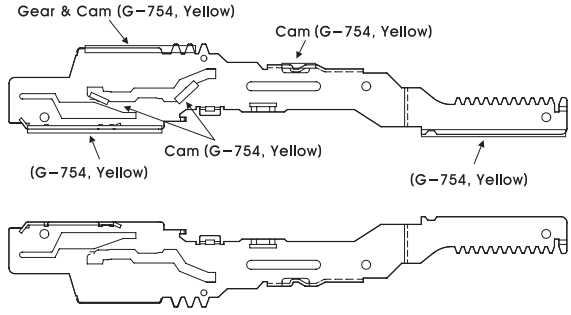


Plate Slider

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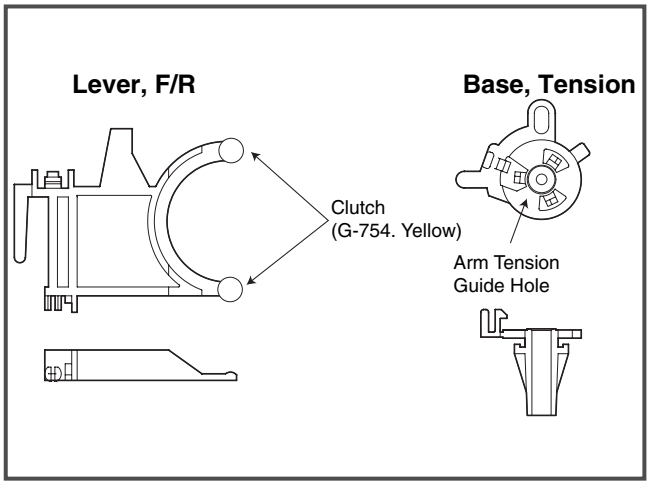
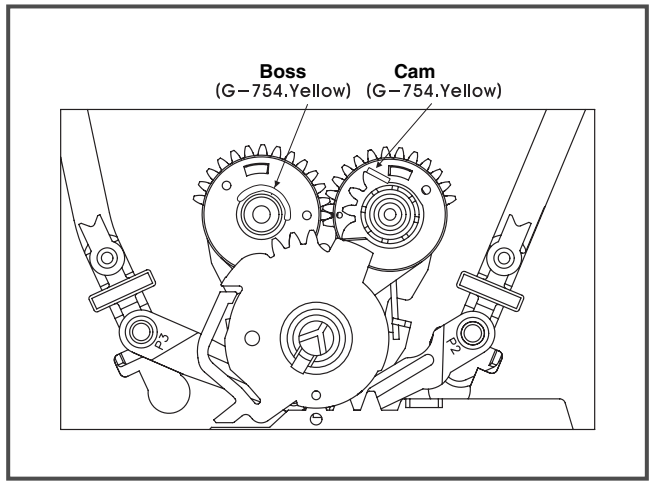
MAINTENANCE/INSPECTION PROCEDURE

Lever, F/R, Base, Tension



GEAR AY, P2 & P3



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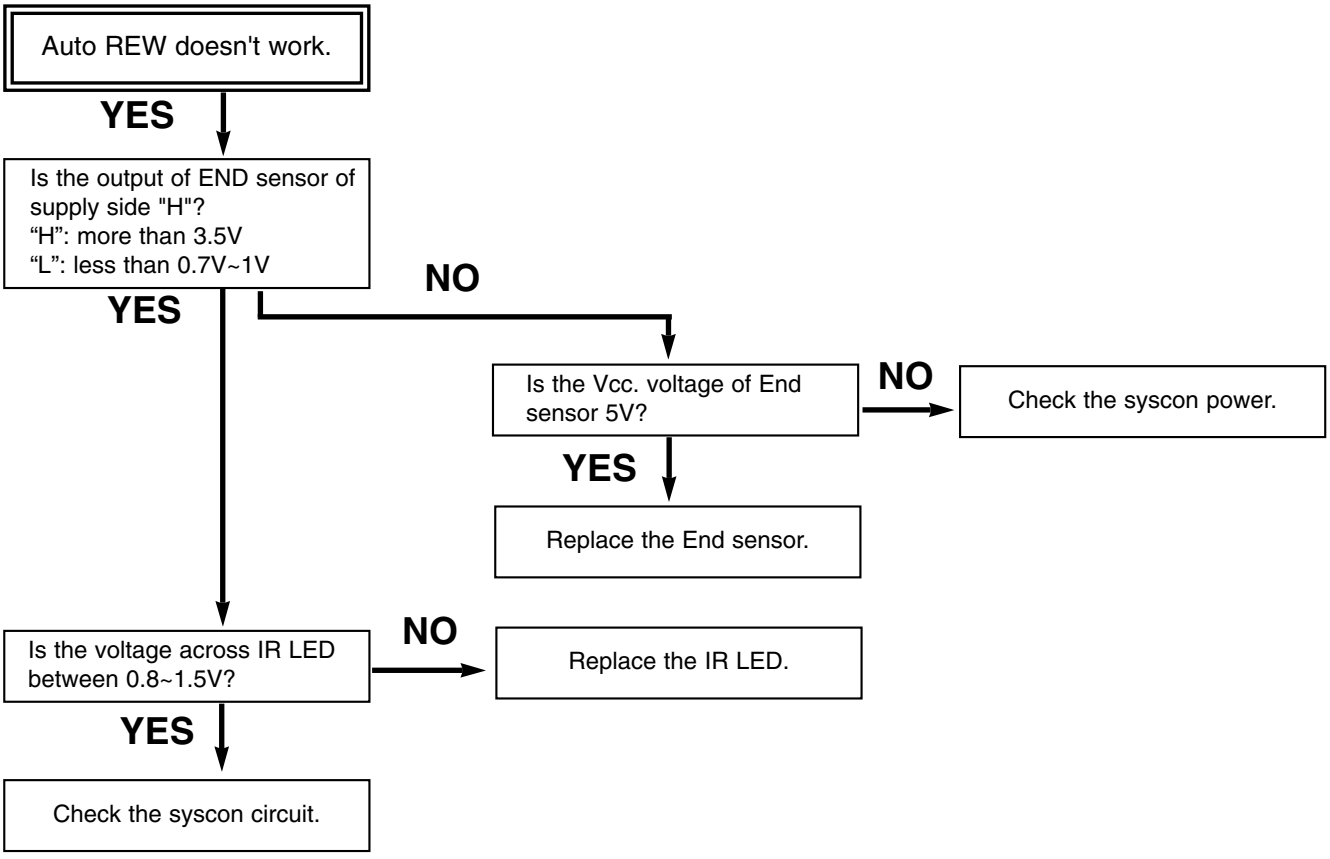
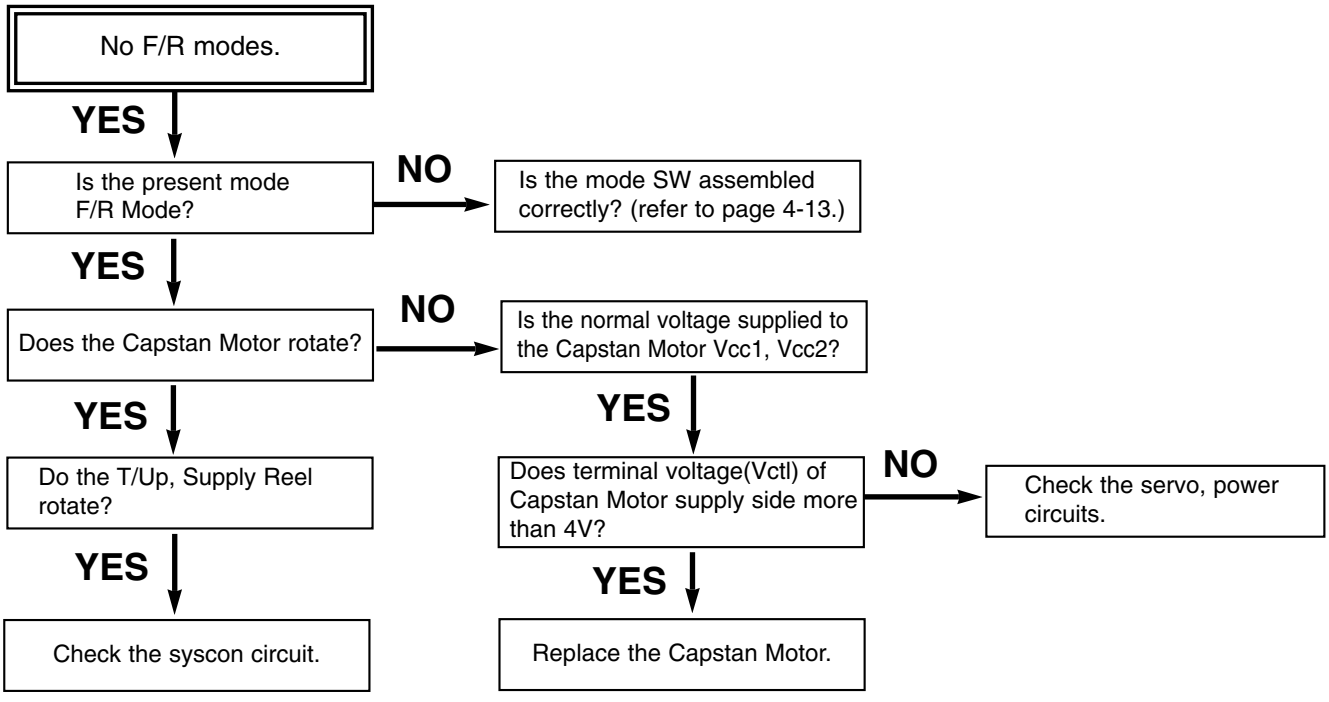
MECHANISM TROUBLESHOOTING GUIDE

1.Deck Mechanism

A.



B.



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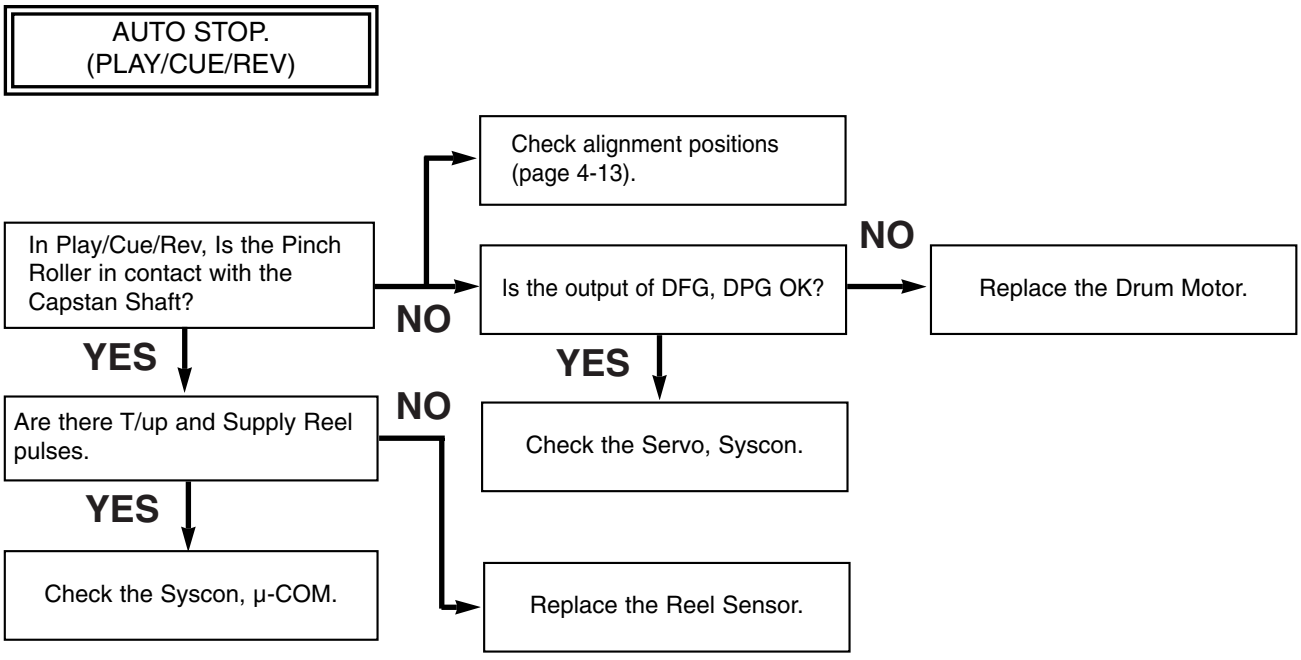
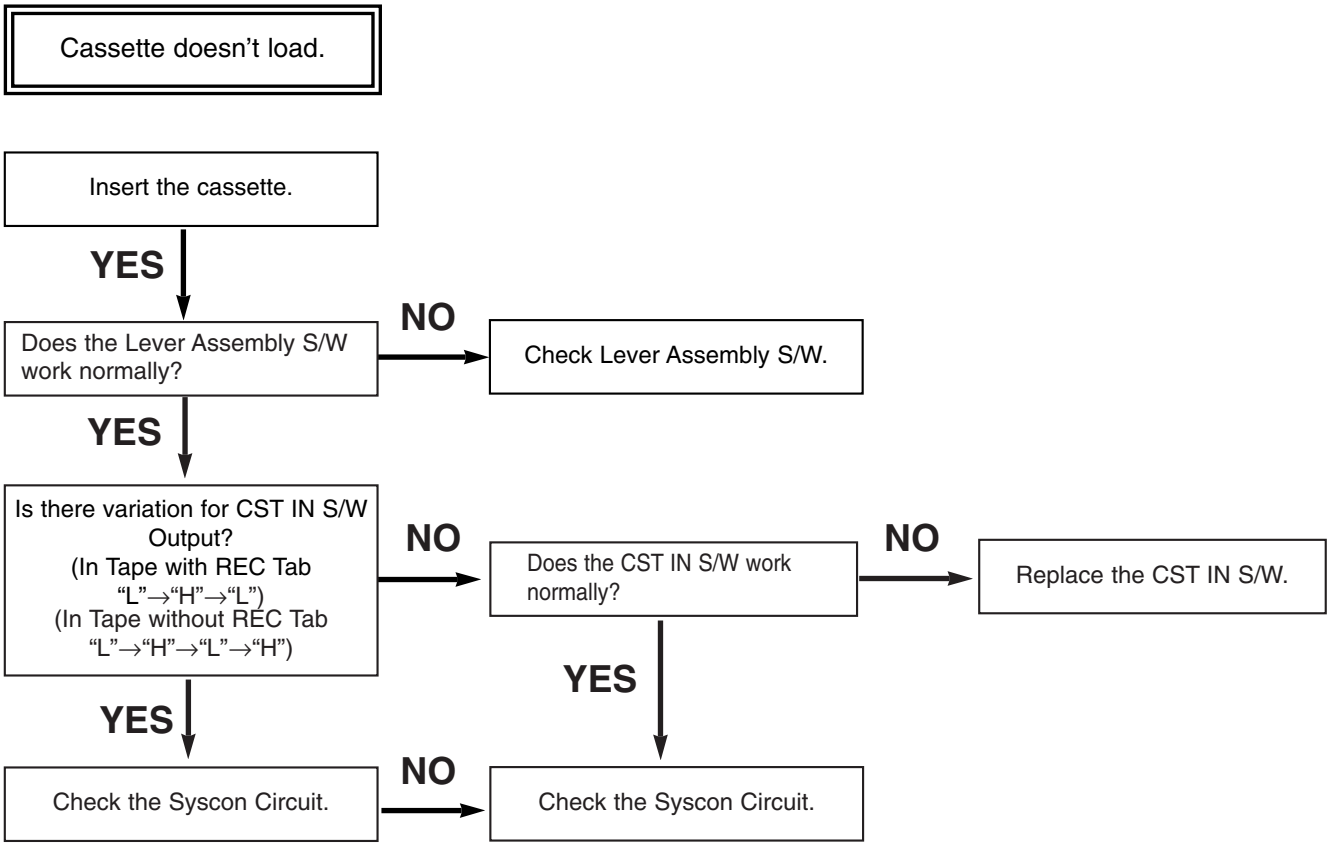
MECHANISM TROUBLESHOOTING GUIDE

C.



D.



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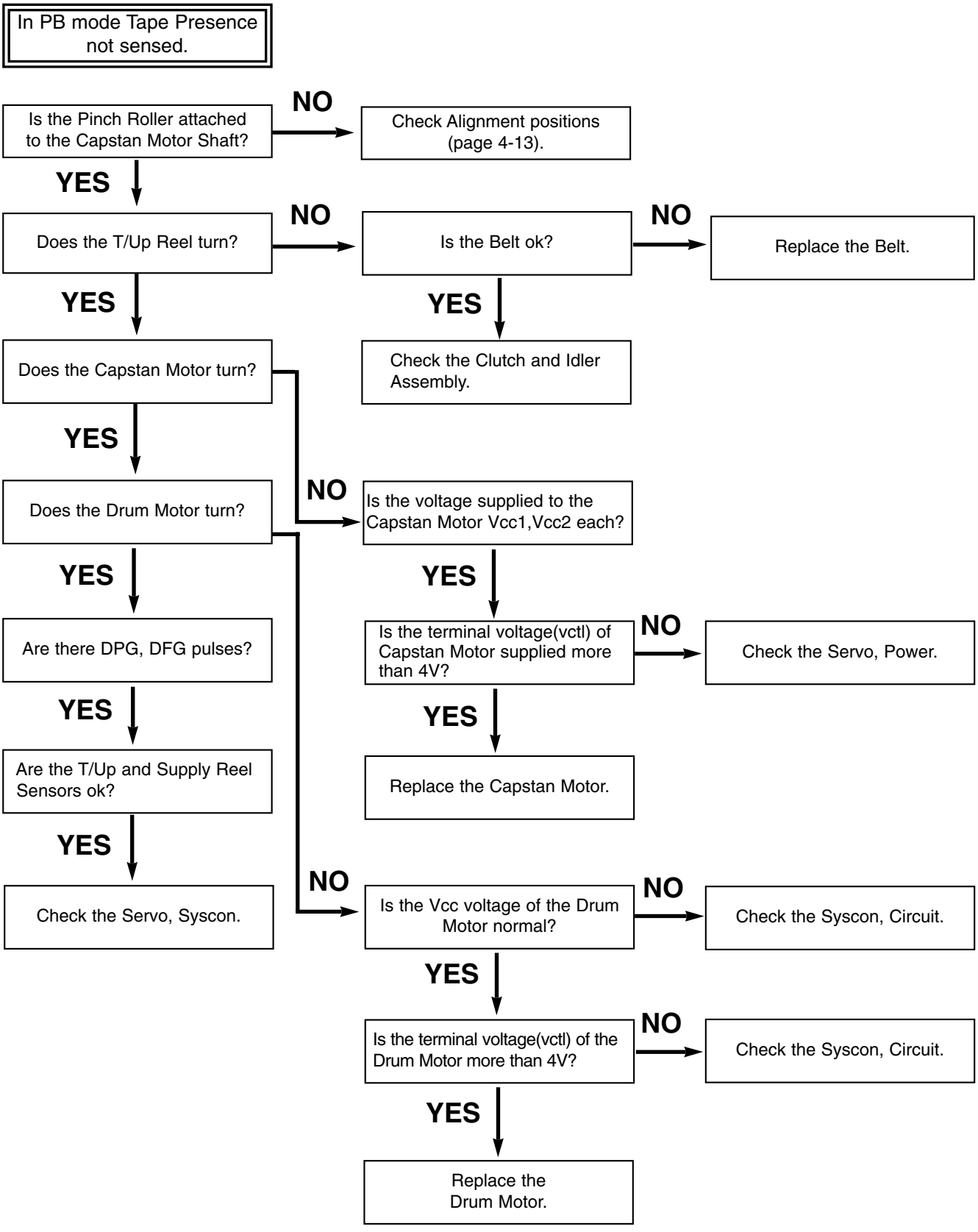
MECHANISM TROUBLESHOOTING GUIDE

E.



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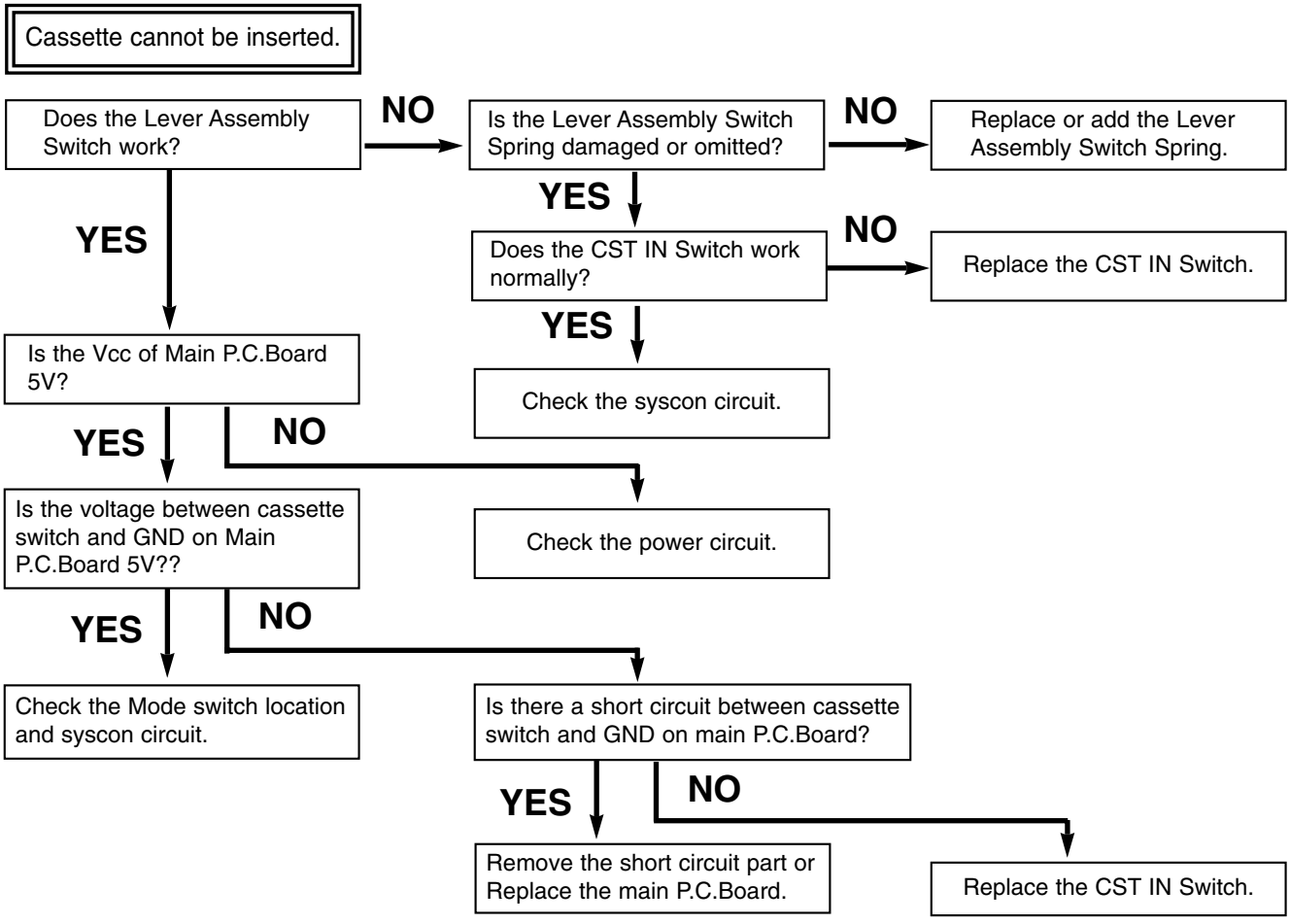
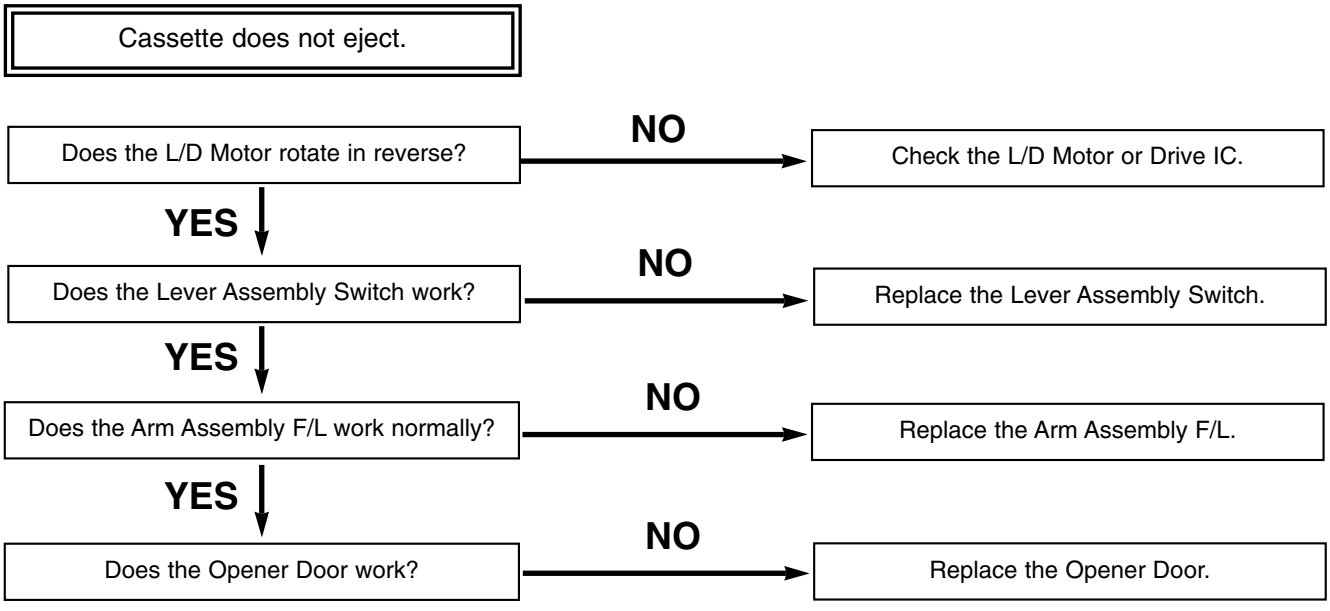
2. Front Loading Mechanism

A.


Cassette cannot be inserted.
Does the Lever Assembly Switch work?
NO
Is the Lever Assembly Switch Spring damaged or omitted?
NO
Replace or add the Lever Assembly Switch Spring.
YES
YES
Does the CST IN Switch work normally?
NO
Replace the CST IN Switch.
YES
Is the Vcc of Main P.C.Board 5V?
Check the syscon circuit.
YES
NO
Is the voltage between cassette switch and GND on Main P.C.Board 5V??
Check the power circuit.
YES
NO
Check the Mode switch location and syscon circuit.
Is there a short circuit between cassette switch and GND on main P.C.Board?
YES
NO
Remove the short circuit part or Replace the main P.C.Board.
Replace the CST IN Switch.

B.



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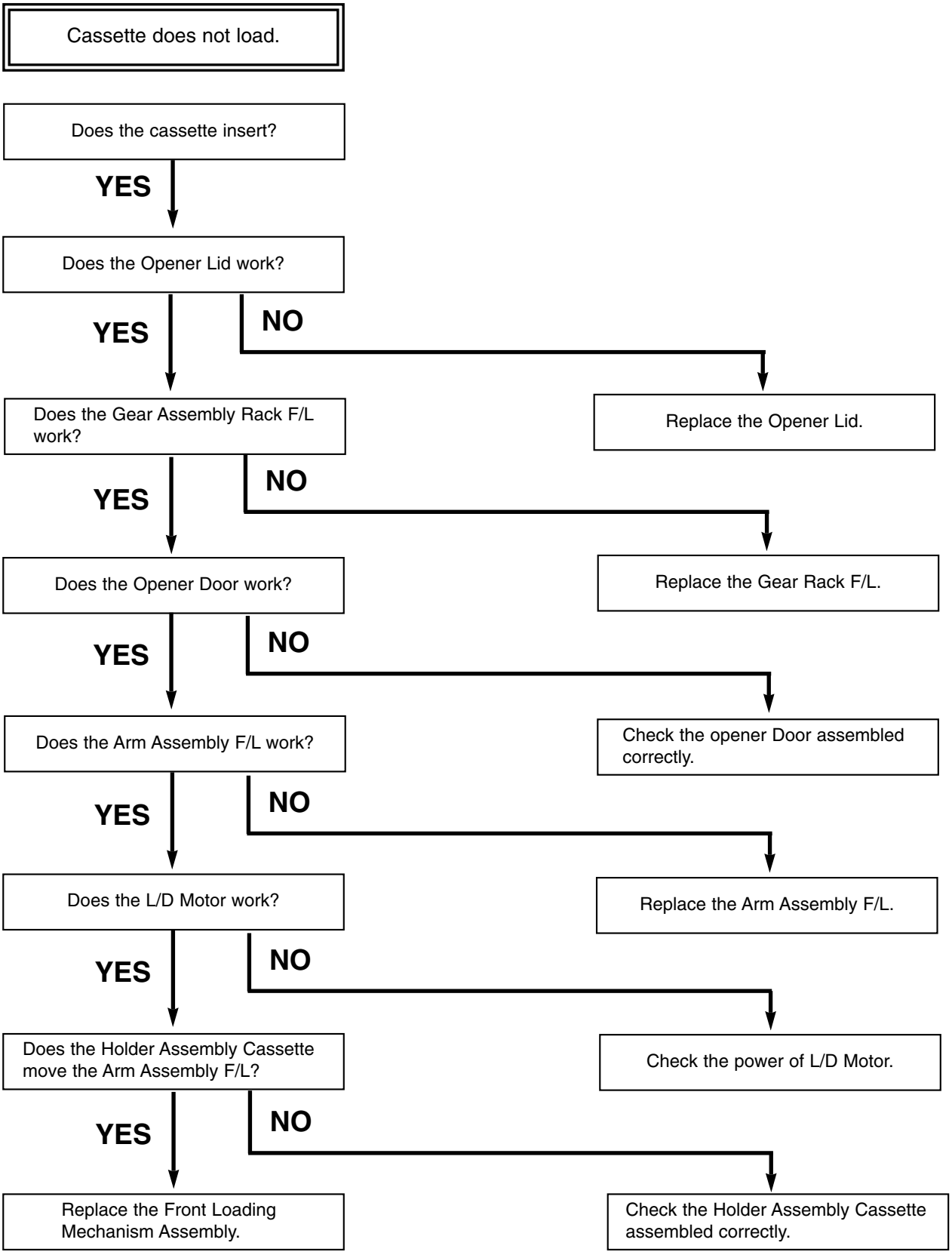
C.



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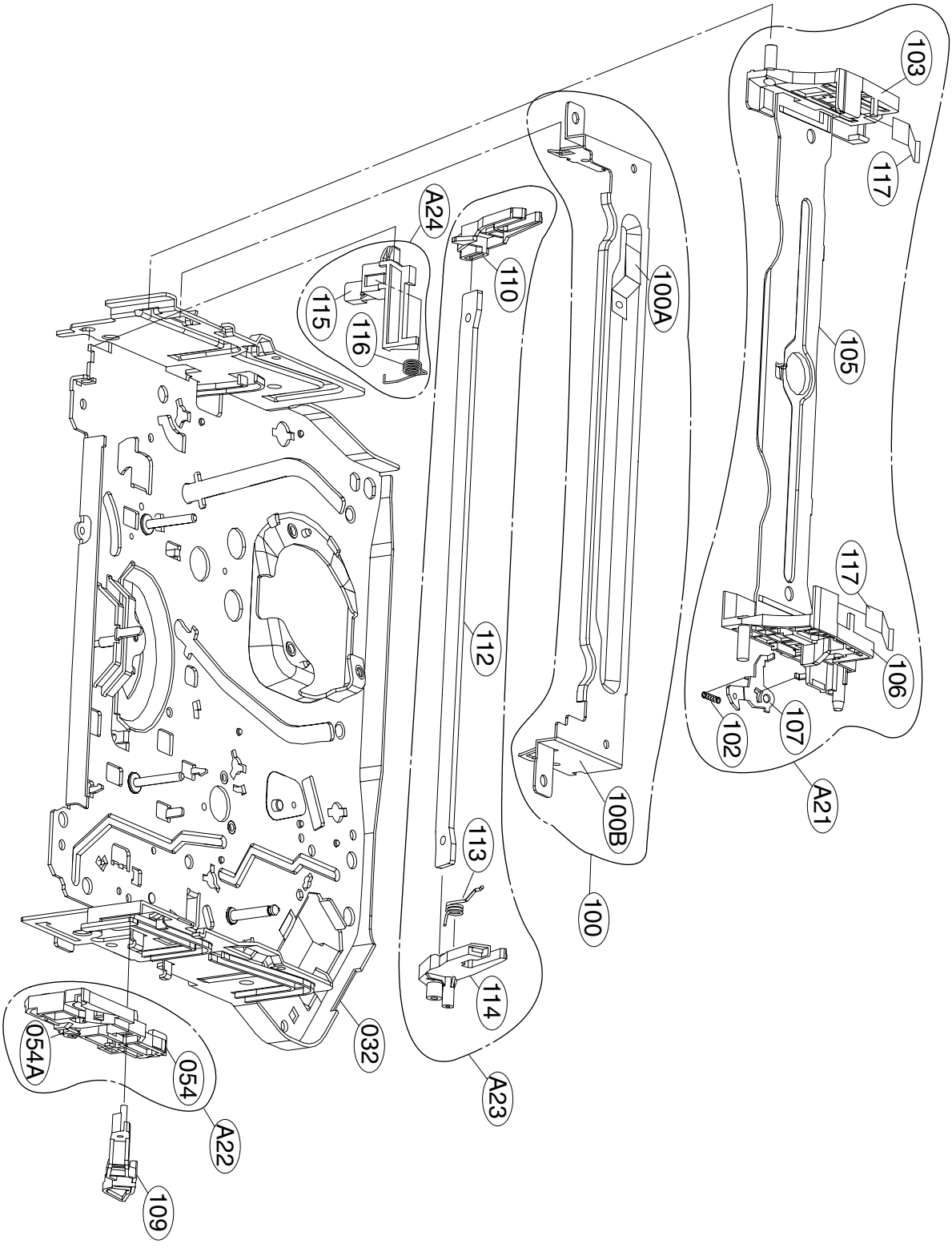
EXPLODED VIEWS

1. Front Loading Mechanism Section



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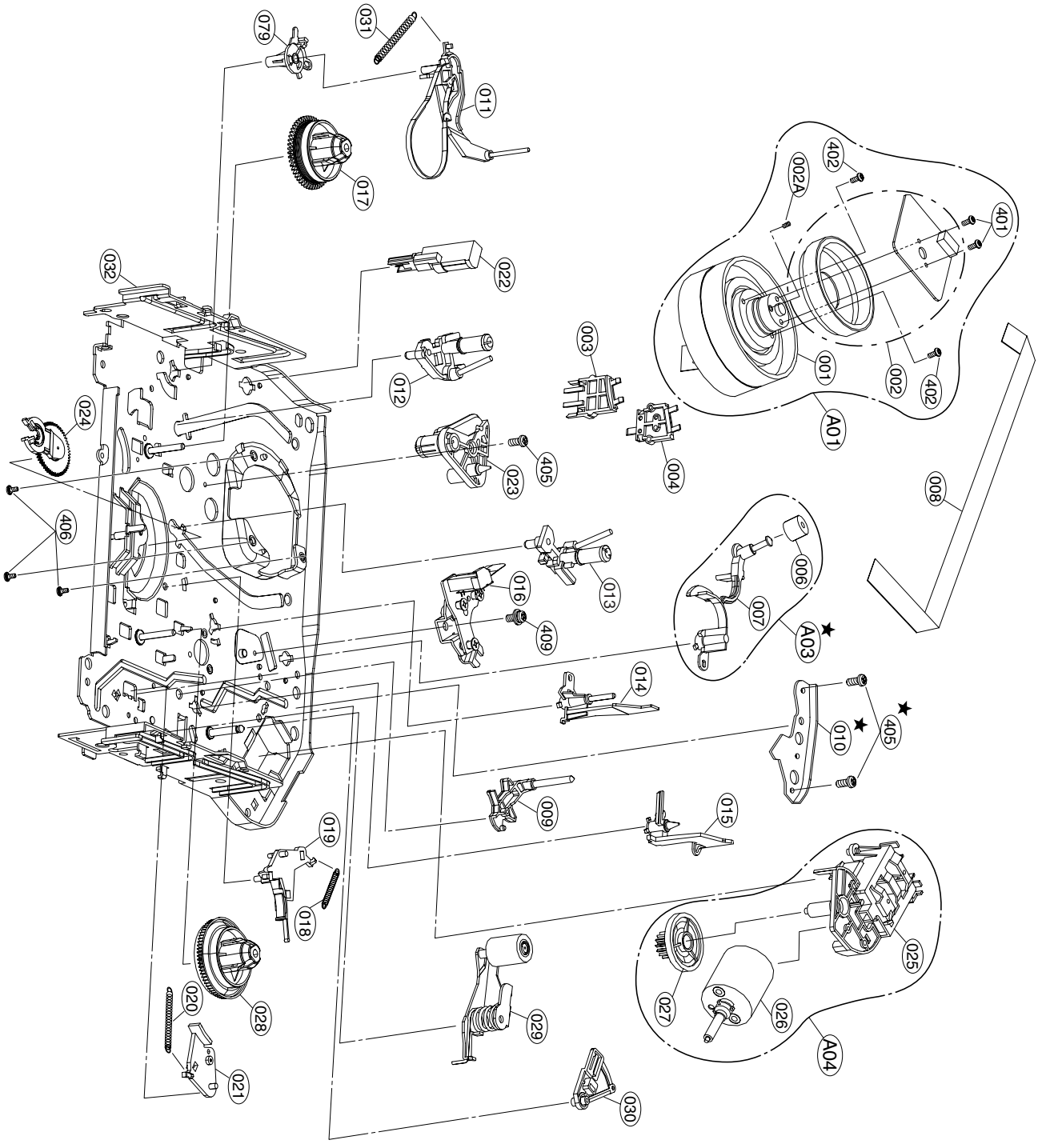
EXPLODED VIEWS

2. Moving Mechanism Section(1)

★ OPTIONAL PART



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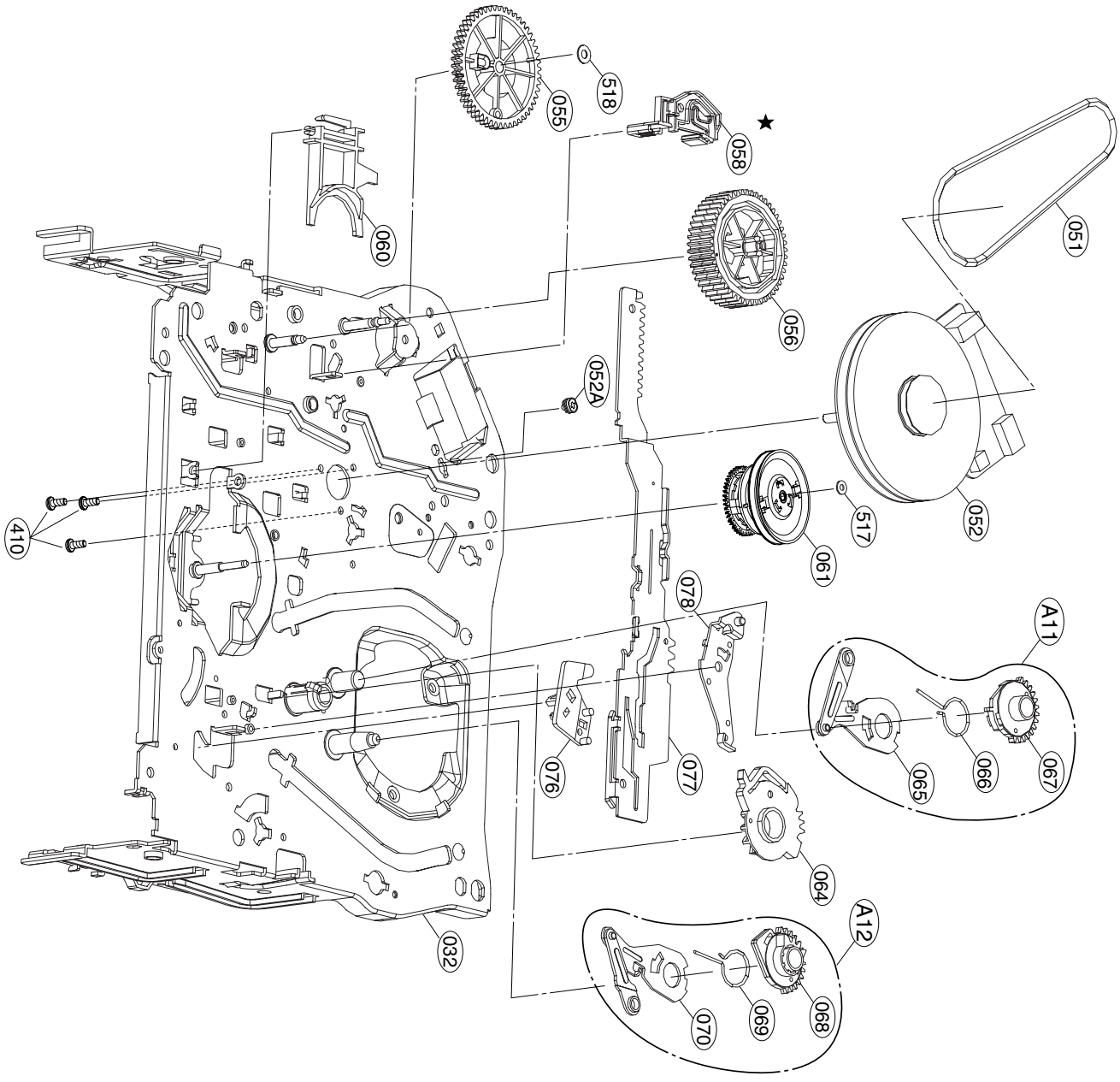
EXPLODED VIEWS

3. Moving Mechanism Section(2)

★ OPTIONAL PART



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NOTES) ⚠ Warning
Parts that are shaded are critical
With respect to risk of fire or
electricial shock.

SECTION 5 REPLACEMENT PARTS LIST

MODELS: A)FC230Y, B)FC431Y, C)FD240Y, D)FD941NY, E)FC290Y, F)FC491Y, G)FC991NY, H)FC999NY LGEMK

RUN DATE:FEB.27.2003

.MECHANICAL SECTION **NSP:Not Service Part**

S	AL	LOCA.NO	PART NO(LG)	A	B	C	D	E	F	G	H	DESCRIPTION	SPECIFICATION	REMARKS
ASSEMBLY PARTS SECTION														
		A00	6721RF0710D			O						DECK ASSEMBLY,VIDEO	D35(N) DI (2HD, NP, AHC(X), B/	NSP
		A00	6721RF0711D	O				O				DECK ASSEMBLY,VIDEO	D35(M) DI (2HD, NP, AHC(X), B/	NSP
		A00	6721RF0731D		O				O			DECK ASSEMBLY,VIDEO	D35(M) DI (4HD, PAL, AHC(X), B	NSP
		A00	6721RF0750D				O					DECK ASSEMBLY,VIDEO	D35(N) DI (4HF, PAL, AHC(X), B	NSP
		A00	6721RF0751D							O	O	DECK ASSEMBLY,VIDEO	D35(M) DI (4HF, PAL, AHC(X), B	NSP
		A01	6723R-0401B	O		O		O				DRUM(CIRC) ASSEMBLY	D35-2CH SP/EP (8M2)	
		A01	6723R-0402C		O				O			DRUM(CIRC) ASSEMBLY	D35-4CH PAL(8P4C)	
		A01	6723R-0403C				O			O	O	DRUM(CIRC) ASSEMBLY	D35-6CH PAL (8P6C)	
		A04	4811RF0038A	O	O	O	O	O	O	O	O	BRACKET ASSEMBLY	L/D(S)	
		A11	4471R-0005A	O	O	O	O	O	O	O	O	GEAR ASSY	P3	
		A12	4471R-0004A	O	O	O	O	O	O	O	O	GEAR ASSY	P2	
		A21	4931R-0047A	O	O	O	O	O	O	O	O	HOLDER ASSY	CST	
		A22	4471R-0006A	O	O	O	O	O	O	O	O	GEAR ASSY	RACK F/L	
		A23	4261R-0023A	O	O	O	O	O	O	O	O	ARM ASSY	F/L	
		A24	4510R-0046A	O	O	O	O	O	O	O	O	LEVER	ASSY SWITCH	
PARTS SECTION														
		001	6723R-0310A	O		O		O				DRUM(CIRC) ASSEMBLY	LOWER D35-2CH	NSP
		001	6723R-0311A		O				O			DRUM(CIRC) ASSEMBLY	LOWER D35-4CH	NSP
		001	6723R-0312A				O			O	O	DRUM(CIRC) ASSEMBLY	LOWER D35-6CH	NSP
		002	4680R-B007A		O				O			MOTOR(MECH)	DRUM MDVC-035AA LGIT FOR D-35,	
		002A	5202R00002C	O	O	O		O	O			BRUSH,CARBON	ASSY D33 (TIP+2 SPRING) 1.4,	
		002A	5202R00002C				O			O	O	BRUSH,CARBON	ASSY D33 (TIP+2 SPRING) 1.4,	
		003	4930R-0286A	O		O		O				HOLDER	FPCB(2CH)	
		004	5006R-0034A	O	O	O	O	O	O	O	O	CAP	FPC	
		008	6850R-HG18Z	O	O	O	O	O	O	O	O	CABLE,FLAT	P=1.25 FFC UL2896(0.05X0.8) 7	
		009	4260R-0038A	O	O	O	O	O	O	O	O	ARM	T/UP(D35)	
		010	4810R-0125A	O	O	O	O	O	O	O	O	BRACKET	CHASSIS	
		011	4261R-0022A	O	O	O	O	O	O	O	O	ARM ASSY	TENSION(D35)	
		012	3041R-0037A	O	O	O	O	O	O	O	O	BASE ASSY	P2	
		013	3041R-0038A	O	O	O	O	O	O	O	O	BASE ASSY	P3	
		014	3041R-0039A	O	O	O	O	O	O	O	O	BASE ASSY	P4	
		015	5870R-0005A	O	O	O	O	O	O	O	O	OPENER	LID(D35)	
		016	3041R-0036A	O	O	O	O	O	O	O	O	BASE ASSEMBLY	A/C HEAD (ALPS)	
		017	4408R-0003A	O	O	O	O	O	O	O	O	REEL	S	
		018	4970R-0140A	O	O	O	O	O	O	O	O	SPRING	COIL RS D35	
		019	4421R-0008A	O	O	O	O	O	O	O	O	BRAKE ASSEMBLY	RS	
		020	4970R-0128A	O	O	O	O	O	O	O	O	SPRING	COIL D35 (TB)	
		021	4421R-0006A	O	O	O	O	O	O	O	O	BRAKE ASSY	T	
		022	6520D00002A	O	O	O	O	O	O	O	O	HEAD(CIRC)	D35 FE ST FE HEAD	
		023	3040R-0057A	O	O	O	O	O	O	O	O	BASE	LOADING	
		024	4261R-0024A	O	O			O	O	O	O	ARM ASSEMBLY	IDLER (H)	
		024	4261R-0029A			O	O					ARM ASSEMBLY	IDLER (N)	
		025	4810R-0118A	O	O	O	O	O	O	O	O	BRACKET	L/D(S)	NSP
		026	4680R-D002A	O	O	O	O	O	O	O	O	MOTOR(MECH)	LOADING MDB2B66 SANKYO D35 ASP	NSP
		027	4470R-0093A	O	O	O	O	O	O	O	O	GEAR	WHEEL	NSP
		028	4408R-0004A	O	O	O	O	O	O	O	O	REEL	T	
		029	4261R-0019A	O	O	O	O	O	O	O	O	ARM ASSEMBLY	DECK/MECHA PINCH	
		030	4510R-0043A	O	O	O	O	O	O	O	O	LEVER	T/UP	
		031	4970R-0123A	O	O	O	O	O	O	O	O	SPRING	COIL TENSION(D35)	
		032	3141R-0040A	O	O	O	O	O	O	O	O	CHASSIS ASSY	D35	NSP
		051	4400R-0005A	O	O	O	O	O	O	O	O	BELT	CAPSTAN	
		052	4680R-A007A	O	O	O	O	O	O	O	O	MOTOR(MECH)	CAPSTAN F2QVB06 SANKYO D35 ASR	

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S	AL	LOCA.NO	PART NO(LG)	A	B	C	D	E	F	G	H	DESCRIPTION	SPECIFICATION	REMARKS
		052A	4980R-0023A	O	O	O	O	O	O	O	O	SUPPORTER	CAPSTAN(D35)	
		054	4470R-0100A	O	O	O	O	O	O	O	O	GEAR	RACK F/L	
		054A	4970R-0124B	O	O	O	O	O	O	O	O	SPRING	COIL D35 (RACK F/L)	
		055	4470R-0097A	O	O	O	O	O	O	O	O	GEAR	DRIVE(D35)	
		056	4470R-0096A	O	O	O	O	O	O	O	O	GEAR	CAM(D35)	
		058	4421R-0007A		O		O		O	O	O	BRAKE ASSY	CAPSTAN	
		060	4510R-0040A	O	O	O	O	O	O	O	O	LEVER	F/R(D35)	
		061	4265R-0005A	O	O			O	O	O	O	CLUTCH ASSEMBLY	D35 (M)	
		061	4265R-0006A			O	O					CLUTCH ASSEMBLY	D35 (N)	
		064	4470R-0098A	O	O	O	O	O	O	O	O	GEAR	SECTOR(D35)	
		065	4261R-0021A	O	O	O	O	O	O	O	O	ARM ASSY	P3	NSP
		066	4970R-0122A	O	O	O	O	O	O	O	O	SPRING	COIL D35	NSP
		067	4470R-0095A	O	O	O	O	O	O	O	O	GEAR	P3	NSP
		068	4470R-0094A	O	O	O	O	O	O	O	O	GEAR	P2	NSP
		069	4970R-0122A	O	O	O	O	O	O	O	O	SPRING	COIL D35	NSP
		070	4261R-0020A	O	O	O	O	O	O	O	O	ARM ASSY	P2	NSP
		076	4510R-0047A	O	O	O	O	O	O	O	O	LEVER	SPRING	
		077	3300R-M116A	O	O	O	O	O	O	O	O	PLATE	SLIDER	
		078	4510R-0041A	O	O	O	O	O	O	O	O	LEVER	TENSION	
		079	3040R-0056A	O	O	O	O	O	O	O	O	BASE	TENSION(D35)	
		100	3301R-M022A	O	O	O	O	O	O	O	O	PLATE ASSEMBLY	TOP	
		100A	3300R-0184A	O	O	O	O	O	O	O	O	PLATE	GND	
		100B	3300R-M118A	O	O	O	O	O	O	O	O	PLATE	TOP(D35)	
		105	4930R-0274A	O	O	O	O	O	O	O	O	HOLDER	CST	
		106	4930R-0275A	O	O	O	O	O	O	O	O	HOLDER	SIDE(R)	
		107	4510R-0044A	O	O	O	O	O	O	O	O	LEVER	STOPPER	
		109	5870R-0004A	O	O	O	O	O	O	O	O	OPENER	DOOR	
		110	4260R-0035A	O	O	O	O	O	O	O	O	ARM	F/L(L)	NSP
		112	3070R-0002A	O	O	O	O	O	O	O	O	BODY	F/L	NSP
		113	4970R-0127A	O	O	O	O	O	O	O	O	SPRING	COIL D35 (F/L(R))	NSP
		114	4260R-0036A	O	O	O	O	O	O	O	O	ARM	F/L(R)	NSP
		115	4510R-0042A	O	O	O	O	O	O	O	O	LEVER	SWITCH	
		116	4970R-0138A	O	O	O	O	O	O	O	O	SPRING	COIL D35 SWITCH	
		117	3300R-M137A	O	O	O	O	O	O	O	O	PLATE	SPRING CST	
SCREW														
		401	1MEC0261518	O	O	O		O	O			SCREW MACHINE,PAN HEAD SPR W	#NAME?	
		401	1MEC0261518				O			O	O	SCREW MACHINE,PAN HEAD SPR W	#NAME?	
		402	1MPC0261418	O	O	O		O	O			SCREW MACHINE,PAN HEAD	D 2.6 L 4.0 MSWR3/FZY	
		402	1MPC0261418				O			O	O	SCREW MACHINE,PAN HEAD	D 2.6 L 4.0 MSWR3/FZY	
		405	1SZZR-0031B	O	O	O	O	O	O	O	O	SCREW,DRAWING	+ 1 D2.6 L5.8 SWRCH16A/FZY TAP	
		406	1MEC0302018	O	O	O	O	O	O	O	O	PAN HEAD MACHINE SCREW S/W +	D 3.0 L 6.0 MSWR3/FZY	
		409	1SZZR-0032B	O	O	O	O	O	O	O	O	SCREW,DRAWING	+ 1 D2.6 L5.0 SWRCH18A/FZY TAP	
		410	1APF0262218	O	O	O	O	O	O	O	O	SCREW TAP TITE(B),PAN HEAD	#NAME?	
.CABINET & MAIN FRAME SECTION														
ASSEMBLY PARTS SECTION														
		A42	6871R-5184F		O							PWB(PCB) ASSEMBLY,TOTAL	(3PIN-7TOOL) LEFT KEY(DI)	
		A42	6871R-5882G						O	O	O	PWB(PCB) ASSEMBLY,TOTAL	FC PAL 9TOOL (LEFT KEY)	
		A43	3721R-F293V	O								PANEL ASSEMBLY,FRONT	VCR FC230Y NA5HLL	
		A43	3721R-F293W		O							PANEL ASSEMBLY,FRONT	VCR FC431Y NA5HLL LV2578	
		A43	3721R-F301G				O					PANEL ASSEMBLY,FRONT	FRONT(F247)-(ED981NY NA5HLL AD	
		A43	3721R-F301N			O						PANEL ASSEMBLY,FRONT	VCR FD240Y NA5HLL	
		A43	3721R-F363D							O		PANEL ASSEMBLY,FRONT	VCR FC991NY NA5HLL CON F305	
		A43	3721R-F363F								O	PANEL ASSEMBLY,FRONT	VCR FC999NY NA5HLL CON 305	
		A43	3721R-F363H					O				PANEL ASSEMBLY,FRONT	VCR FC290Y NA5HLL CON F305	
		A43	3721R-F363X						O			PANEL ASSEMBLY,FRONT	VCR FC491Y NA5HLL ADD 4HD MONO	
		A46	3501R-7801L	O								BOARD ASSEMBLY	VCR MAIN FC230Y NA5HLL	
		A46	3501R-7801M					O				BOARD ASSEMBLY	VCR MAIN FC290Y NA5HLL	
		A46	3501R-7801P		O				O			BOARD ASSEMBLY	VCR MAIN FC491Y NA5HLL	
		A46	3501R-7801S			O						BOARD ASSEMBLY	VCR MAIN FD240Y NA5HLL	
		A46	3501R-7801V				O					BOARD ASSEMBLY	VCR MAIN FD941NY NA5HLL	
		A46	3501R-7801X							O		BOARD ASSEMBLY	VCR MAIN FC991NY NA5HLL	
PARTS SECTION														
		250	3110R-0223G	O	O	O	O	O	O	O	O	CASE	VCR - TOP(0128 A288G SIDE SCRE	
		260	3210R-0023F	O	O	O	O	O	O	O	O	FRAME	VCR - MAIN (VII-PJT, 60HR,8657	NSP
		275	4930R-0102A	O	O	O	O	O	O	O	O	HOLDER	LED	
		280	3720R-F183E	O	O							PANEL,FRONT	FRONT(EC971P NA51LL)	NSP

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S	AL	LOCA.NO	PART NO(LG)	A	B	C	D	E	F	G	H	DESCRIPTION	SPECIFICATION	REMARKS
		280	3720R-F188M			O						PANEL,VIDEO	FRONT (ED280P NA3GLL)	NSP
		280	3720R-F216E				O					PANEL,VIDEO	(F188)FRONT (ED981NY NA5HLL)	NSP
		280	3720R-F228A							O	O	PANEL,VIDEO	FRONT (FC999NI EVENT)	NSP
		280	3720R-F228V					O				PANEL,VIDEO	VCR FC290Y NA5HLL MOLD	NSP
		280	3720R-F246E						O			PANEL,VIDEO	VCR FC491Y NA5HLL MOLD ADD 4HD	NSP
		283	3580R-V026L	O	O	O	O					DOOR,CASE	VCR EC291P CST (NA5ILL-ABS HF-	
		283	3580R-V045A					O	O	O	O	DOOR,CASE	CST (VCR FC99 LG BADGE)	
		284	442-681A	O								SPRING	DOOR	
		284	442-681A		O	O	O	O	O	O	O	SPRING	DOOR	
⚠		300	6410RCHP02B	O	O	O	O	O	O	O	O	POWER CORD	HIT-102/H0VHH2-F(WITH CORE) HI	
		320	3720R-D020A	O		O		O				PANEL	VCR - DISTRIBUTOR (PAL-1SCART)	
		320	3720R-D020B		O		O		O			PANEL	DISTRIBUTOR (PAL-SCART MONO)	
		320	3720R-D020C							O	O	PANEL	VCR - DISTRIBUTOR (PAL-2SCART	
		330	3550R-0210A	O	O	O	O	O	O	O	O	COVER	BOTTOM(LARGE)	
SCREW														
		452	353-051A	O	O	O	O	O	O	O	O	SCREW	SPECIAL	
		457	353-051E	O	O	O	O	O	O	O	O	SCREW	SPECIAL (3X12)	
		462	353-136D	O	O	O	O	O	O	O	O	SCREW,DRAWING	+ 2 D4.0 L12.5 MSWR3/FN	
		517	1WZZR-0004D	O	O	O	O	O	O	O	O	WASHER	STOPPER	
		518	1WZZR-0004A	O	O	O	O	O	O	O	O	WASHER	STOPPER	
.PACKING & ACCESSORY SECTION														
		801	3835RP0088C	O	O	O	O	O	O	O	O	INSTRUCTION ASSEMBLY	VCR FC999NY/FC934NY/FC991NY/FD	
		802	3890R-H532L					O				BOX	FC290Y NA5HLL SWW3-A 0.858 4 F	
		802	3890R-H532X						O			BOX	FC491Y NA5HLL SWW3-A 0.858 4 F	
		802	3890R-H533S							O		BOX	FC991NY NA5HLL SWW3-A 0.858 4	
		802	3890R-H533Y								O	BOX	FC999NY NA5HLL SWW3-A 0.858 4	
		802	3890R-H795K		O							BOX	EC471Y NA5HLL SWW3-A 0.858 4 F	
		802	3890R-H795Q	O								BOX	EC270Y NA5HLL SWW3-A 0.858 4 F	
		802	3890R-H795R			O						BOX	ED280Y NA5HLL SWW3-A 0.858 4 F	
		802	3890R-H795W				O					BOX	ED981NY NA5HLL SWW3-A 0.858 4	
		803	3920R-0067A	O	O	O	O	O	O	O	O	PACKING	AF999NS 0.02 65 EPS 12 1190 23	
		804	292-053A	O	O	O	O	O	O	O	O	BAG	SOFT(VCP)	NSP
		806	6850R-CAA26	O	O	O	O	O	O	O	O	CABLE,COAXIAL	1200M/M PAL-PAL DOUBLE SHIELD	
		808	534-008C	O	O	O	O	O	O	O	O	BATTERY,MANGANESE	AAAM(R03) SEOTONG 1-5 V - 1PA	
		810	6851RP0003A	O	O	O	O	O	O	O	O	CABLE ASSY,RF	CABLE ASSY,RF/SCART/RCA USING	
.REMOTE CONTROL SECTION														
		900	6711R1P038C	O	O	O	O	O	O	O		REMOTE CONTROLLER ASSEMBLY	N6 UNIFIED EC281P W/O SHOWVIEW	

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.ELECTRICAL SECTION

S	AL	LOCA.NO	PART NO(LG)	A	B	C	D	E	F	G	H	DESCRIPTION	SPECIFICATION	REMARKS
		BD101	0DD160000DA	O	O	O	O	O	O	O	O	DIODE	S1WBA60(1A 600V) SHIDENKEN	
⚠		C101	624-088L	O	O	O	O	O	O	O	O	CAPACITOR,DRAWING	435D SUNIL ELECTRONICS 0.1UF/2	
⚠		C102	624-088L	O	O	O	O	O	O	O	O	CAPACITOR,DRAWING	435D SUNIL ELECTRONICS 0.1UF/2	
		C103	0CE686CU611	O	O	O	O	O	O	O	O	CAPACITOR,AL.ELECTROLYTIC	68UF SHL,SD 400V M FL BK7.5	
		C105	0CQ1031Y519	O	O	O	O	O	O	O	O	CAPACITOR,POLYESTER	0.01UF D 630V K PE NI TP	
		C106	624-087B	O	O	O	O	O	O	O	O	CAPACITOR	HIGH-VOL 100P/1KV SMPS SAMHWA	
		C109	0CE1064K638	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	10M SRA 50V M FM5 TP(5)	
⚠		C112	0CG3320U630	O	O	O	O	O	O	O	O	CAPACITOR,SEMI CERAMIC	3300 PF 400V M E R(NK,AD,SD)	
⚠		C113	0CG3310U510	O	O	O	O	O	O	O	O	CAPACITOR,FIXED CERAMIC(TEMP.C	330PF D 400V 10% B(Y5P) R	
		C114	0CQ4732K409	O	O	O	O	O	O	O	O	CAPACITOR,FIXED FILM	0.047UF S 50V J PE TP	
		C115	624-085D	O	O	O	O	O	O	O	O	CAPACITOR	CE 47UF/50V KME (SMPS)	
		C116	0CE108BF630	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	1000UF KME 16V M FM5 BULK	
		C117	624-082H	O	O	O	O	O	O	O	O	CAPACITOR	CE 1000UF/10V SHL(10*12.5)T/P	
		C120	0CE477BH630	O	O	O	O	O	O	O	O	CAPACITOR,AL.ELECTROLYTIC	470UF KME TYPE 25V M FM5 BULK	
		C121	0CE227CH618	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	220UF SHL,SD 25V 20% FL TP 5	
		C123	0CE337BJ610	O	O			O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	330UF KME TYPE 35V 20% FL BULK	
		C127	0CN223AK948	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	
		C135	0CN4710K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	470P 50V K B TA26	
		C153	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C190	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C301	0CE4754K638	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	
		C302	0CE2264F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	22M SRA 16V M FM5 TP(5)	
		C303	0CN1220F668	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1200P 16V M X TA26	
		C304	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C305	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C306	0CN1220F668	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1200P 16V M X TA26	
		C307	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C308	0CQ1532K409	O	O	O	O	O	O	O	O	CAPACITOR,FIXED FILM	0.015UF S 50V J PE TP	
		C309	0CN1210K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	120P 50V K B TA26	
		C310	0CQ1032K409	O	O	O	O	O	O	O	O	CAPACITOR,POLYESTER(MYLAR)	0.01UF S 50V J PE TP	
		C311	0CE4765K618	O	O	O	O	O	O	O	O	CAPACITOR,AL.ELECTROLYTIC	47UF SR,SV 50V M FL TP 5	
		C312	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C313	0CQ2232L559	O	O	O	O	O	O	O	O	CAPACITOR,POLYESTER	0.022UF S 63V K PP NI TP5	
		C314	0CE2264F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	22M SRA 16V M FM5 TP(5)	
		C315	0CE2253K636	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	2.2UF SRE,SE 50V 20% FM5 BP(D)	
		C316	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C317	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C318	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C319	0CQ1032K409	O	O	O	O	O	O	O	O	CAPACITOR,POLYESTER(MYLAR)	0.01UF S 50V J PE TP	
		C320	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C321	0CX6800K408	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(T.C)	68P 50V J SL TA26	
		C322	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C323	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C324	0CE4754K638	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	
		C325	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C326	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C327	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C328	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C329	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C330	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C331	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C333	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C334	0CN4730K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.047UF D 50V 80%,-20% F(Y5V)	
		C335	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C336	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C337	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C338	0CN4730K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.047UF D 50V 80%,-20% F(Y5V)	
		C339	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C340	0CN4730K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.047UF D 50V 80%,-20% F(Y5V)	
		C341	0CN223AK948	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	
		C342	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C343	0CN4730K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.047UF D 50V 80%,-20% F(Y5V)	
		C344	0CN1010K518	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	100P 50V K B TA26	
		C345	0CN3330K518	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.033UF 50V K B TA26	
		C346	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	

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S	AL	LOCA.NO	PART NO(LG)	A	B	C	D	E	F	G	H	DESCRIPTION	SPECIFICATION	REMARKS
		C347	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C348	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C349	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C353	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C355	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C356	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C357	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C358	0CX6800K408	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(T.C)	68P 50V J SL TA26	
		C359	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C360	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C361	0CN223AK948	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	
		C362	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C363	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C364	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C365	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C366	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C367	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C368	0CQ8224K409	O	O	O	O	O	O	O	O	CAPACITOR,FIXED FILM	0.0082UF TE 50V 5% PE TP5	
		C369	0CN1010K518	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	100P 50V K B TA26	
		C370	0CN8200K418	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	82P 50V J B TA26	
		C371	0CN8200K418	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	82P 50V J B TA26	
		C372	0CN8200K418	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	82P 50V J B TA26	
		C373	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C375	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C500	0CE4775C638	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	470UF SR,SV 6.3V 20% FM5 TP 5	
		C501	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C502	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C503	0CE2274C638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	
		C504	0CE2274C638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	
		C505	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C506	0CN223AK948	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	
		C508	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C509	0CC2200K415	O	O	O	O	O	O	O	O	CAPACITOR,CERAMIC(TEMP COMP)	22P 50V J NP0 TS	
		C510	0CE2274C638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	
		C511	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C512	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C513	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C514	0CC1200K415	O	O	O	O	O	O	O	O	CAPACITOR,FIXED CERAMIC(TEMP.C	12PF 2012 50V 5% NP0 TR	
		C515	0CC1500K415	O	O	O	O	O	O	O	O	CAPACITOR,CERAMIC(TEMP COMP)	15P 50V J NP0 TS	
		C516	0CN223AK948	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	
		C518	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C519	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C520	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C523	0CE2254K638	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	2.2UF SRA,SS 50V 20% FM5 TP 5	
		C524	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C525	0CE2274C638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	
		C526	0CE4764J638	O	O	O	O	O	O	O	O	CAPACITOR,AL.ELECTROLYTIC	47UF SRA,SS 35V M FM5 TP 5	
		C527	0CN2210K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	220P 50V K B TA26	
		C533	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C534	0CE4754K638	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	
		C535	0CE4754K638	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	
		C543	0CN2220F668	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	2200P 16V M X TA26	
		C544	0CQ4732K409	O	O	O	O	O	O	O	O	CAPACITOR,FIXED FILM	0.047UF S 50V J PE TP	
		C545	0CN3330K518	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.033UF 50V K B TA26	
		C546	0CE4764J638	O	O	O	O	O	O	O	O	CAPACITOR,AL.ELECTROLYTIC	47UF SRA,SS 35V M FM5 TP 5	
		C547	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C551	0CQ3332K409	O	O	O	O	O	O	O	O	CAPACITOR,FIXED FILM	0.033UF S 50V J PE TP	
		C552	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C561	0CE2274C638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	
		C564	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C567	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C570	0CC1500K415	O	O	O	O	O	O	O	O	CAPACITOR,CERAMIC(TEMP COMP)	15P 50V J NP0 TS	
		C571	0CC1500K415	O	O	O	O	O	O	O	O	CAPACITOR,CERAMIC(TEMP COMP)	15P 50V J NP0 TS	
		C575	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C576	0CC2700K415	O	O	O	O	O	O	O	O	CAPACITOR CERAMIC(TEMP COMP)	27P 50V J NP0 TP	
		C577	0CN223AK948	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	

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S	AL	LOCA.NO	PART NO(LG)	A	B	C	D	E	F	G	H	DESCRIPTION	SPECIFICATION	REMARKS
		C578	0CN2220F668	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	2200P 16V M X TA26	
		C581	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C582	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C583	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C589	0CQ2232K409	O	O	O	O	O	O	O	O	CAPACITOR,FIXED FILM	0.022UF S 50V J PE TP	
		C596	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C5A3	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C5A4	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C5A5	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C5G1	0CN1020K518	O	O			O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C5G2	0CE1086C638	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	1000000000 PF SMS,SG 6.3V M FM	
		C5G3	0CN1040K948	O	O			O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C5K1	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C5R1	0CE3364F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	33M SRA 16V M FM5 TP(5)	
		C5R2	0CN6810K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	680P 50V K B TA26	
		C5S1	0CX4300K408	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(T.C)	43P 50V J SL TA26	
		C5S3	0CN223AK948	O	O	O	O	O	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	
		C701	0CE4754K638	O	O	O	O	O	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	
		C704	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C705	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C706	0CE4775C618	O	O	O	O	O	O	O	O	CAPACITOR,AL.ELECTROLYTIC	470UF SR,SV 6.3V M FL TP 5	
		C707	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C710	0CX6800K408	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(T.C)	68P 50V J SL TA26	
		C711	0CX3300K408	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(T.C)	33P 50V J SL TA26	
		C712	0CX5R60K508	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(T.C)	5.6PF 50V K SL TA26	
		C713	0CE4764F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C714	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C751	0CE4764F638				O			O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C752	0CN1030F678				O			O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C753	0CX5600K408				O			O	O	CAPACITOR,TUBULAR(T.C)	56P 50V J SL TA26	
		C754	0CX5600K408				O			O	O	CAPACITOR,TUBULAR(T.C)	56P 50V J SL TA26	
		C755	0CE4764F638				O			O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C756	0CN1030F678				O			O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C757	0CE4764F638				O			O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C758	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C759	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C760	0CN1030F678				O			O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C761	0CN1030F678				O			O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C764	0CN3920F668				O			O	O	CAPACITOR TUBULA(HIGH DIELE)	3900P 16V M X TA26	
		C765	0CN1520F668				O			O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	1500P 16V M X TA26	
		C766	0CE3354K638				O			O	O	CAPACITOR,FIXED ELECTROLYTIC	3.3UF SRA,SS 50V 20% FM5 TP 5	
		C769	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C770	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C771	0CN1030F678				O			O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C772	0CC0500K015				O			O	O	CAPACITOR,CERAMIC(TEMP COMP)	5P 50V C NP0 TR	
		C773	0CC0800K015				O			O	O	CAPACITOR CERAMIC(TEMP COMP)	8P 50V C NP0 TS	
		C790	0CN1030F678	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C7M2	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C7M3	0CX2700K408	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(T.C)	27P 50V J SL TA26	
		C7M6	0CX2700K408	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(T.C)	27P 50V J SL TA26	
		C7V1	0CE4764F638								O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C7V2	0CN223AK948								O	CAPACITOR,TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	
		C7V3	0CE1054K638								O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C7V4	0CN4730K948								O	CAPACITOR,FIXED TUBULAR(High d	0.047UF D 50V 80%,-20% F(Y5V)	
		C7V5	0CN4730K948								O	CAPACITOR,FIXED TUBULAR(High d	0.047UF D 50V 80%,-20% F(Y5V)	
		C805	0CN1040K948				O			O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C806	0CE4754K638				O			O	O	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	
		C807	0CE4754K638				O			O	O	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	
		C808	0CN1040K948				O			O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C809	0CN1040K948				O			O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C810	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C811	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C813	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C814	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C817	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C818	0CE4754K638				O			O	O	CAPACITOR,FIXED ELECTROLYTIC	4.7UF SRA,SS 50V 20% FM5 TP 5	

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		C819	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C820	0CQ6822K409				O			O	O	CAPACITOR,POLYESTER(MYLAR)	6800PF S 50V J PE TP	
		C821	0CE4764F638				O			O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C822	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C823	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C824	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C825	0CE4764F638				O			O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C826	0CQ6822K409				O			O	O	CAPACITOR,POLYESTER(MYLAR)	6800PF S 50V J PE TP	
		C827	0CE1064F638				O			O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C828	0CE4764F638				O			O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C829	0CN1030F678				O			O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C830	0CN1040K948				O			O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C831	0CN1030F678				O			O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C832	0CE4764F638				O			O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C835	0CE4744K638				O			O	O	CAPACITOR,ELECTROLYTIC	0.47M SRA 50V M FM5 TP(5)	
		C8R1	0CN1020K518				O			O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C8R2	0CN1020K518				O			O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C901	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C902	0CE477CF638	O	O	O	O	O	O	O	O	CAPACITOR,AL.ELECTROLYTIC	470UF SHL TYPE 16V M FM5 TP 5	
		C903	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C904	0CN1020K518	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C909	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C911	0CN1020K518		O		O		O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C912	0CE477CF638		O		O		O	O	O	CAPACITOR,AL.ELECTROLYTIC	470UF SHL TYPE 16V M FM5 TP 5	
		C914	0CN1020K518		O		O		O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C915	0CN1040K948		O		O		O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C917	0CX2700K408		O		O		O	O	O	CAPACITOR TUBULA(T.C)	27P 50V J SL TA26	
		C920	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C921	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C956	0CE1054K638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	1.0M SRA/SS50V M FM5 TP(5)	
		C957	0CX2700K408	O	O	O	O	O	O	O	O	CAPACITOR TUBULA(T.C)	27P 50V J SL TA26	
		C960	0CN1040K948	O	O	O	O	O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C961	0CE1064F638	O	O	O	O	O	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C9F1	0CN1020K518		O			O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C9F2	0CN1020K518		O			O	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C9F3	0CN1040K948		O			O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C9F4	0CN1040K948		O			O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C9F5	0CN1040K948		O			O	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C9M1	0CN1040K948		O				O			CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C9M3	0CN1040K948		O				O			CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C9M4	0CN1040K948		O				O			CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C9M5	0CN1040K948		O				O			CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C9M6	0CE1064F638		O				O			CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C9M7	0CE1064F638		O				O			CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C9M8	0CN1040K948		O				O			CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C9M9	0CN1040K948		O				O			CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C9S1	0CE1064F638		O				O			CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C9S2	0CE1064F638		O				O			CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C9S3	0CE1064F638		O				O			CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		CS501	6600M000002	O	O	O	O	O	O	O	O	SWITCH,PUSH	MPU11810MLB0 MIC DC 5V 1MA D-3	
		D102	0DD010009CA	O	O	O	O	O	O	O	O	DIODE,RECTIFIER	EG01CW(R-FORM 5MM) TP SANKEN	
		D103	0DR180209AA	O	O	O	O	O	O	O	O	DIODE,RECTIFIER	ERA18-02KFRB TP FUJI DO204AL 2	
		D104	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D105	0DR104009BA	O	O	O	O	O	O	O	O	DIODE,RECTIFIER	RL104F TP RECTRON NON 400V 1A	
		D106	0DR158220AA	O	O	O	O	O	O	O	O	DIODE,RECTIFIER	1N5822 BK RECTRON DO201AD 40V	
		D109	0DR202000AB	O	O	O	O	O	O	O	O	DIODE,RECTIFIER	HER202 BK RECTRON NON 100V 2A	
		D110	0DR104009BA	O	O			O	O	O	O	DIODE,RECTIFIER	RL104F TP RECTRON NON 400V 1A	
		D154	874-000T	O	O	O	O	O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		D155	0DD207000AB	O	O	O	O	O	O	O	O	DIODE,RECTIFIERS	2A07 2A RECT(T/S)P=12.5 F DELT	
		D156	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D159	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D160	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D301	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D502	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D509	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D901	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	

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		D902	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D903	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D904	0DD133009AA		O		O		O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D9M1	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		D9M2	0DD133009AA	O	O	O	O	O	O	O	O	DIODE,SWITCHING	1SS133 DETECT,SW TP	
		ES501	4931R-0050C	O	O	O	O	O	O	O	O	HOLDER ASSEMBLY	END (DI)	
		ES502	4931R-0050C	O	O	O	O	O	O	O	O	HOLDER ASSEMBLY	END (DI)	
⚠		F101	585-011T	O	O	O	O	O	O	O	O	FUSE,SLOW BLOW	1600MA 250 V 5.2X20 CY/GL SEMK	
		F102	GIRH200000B	O	O	O	O	O	O	O	O	IC,ROHM	ICP-N20 T104 TP IC DETACT	
		FH01	586-008B	O	O	O	O	O	O	O	O	HOLDER	FUSE CLIP TP SINSUNG	
		FH02	586-008B	O	O	O	O	O	O	O	O	HOLDER	FUSE CLIP TP SINSUNG	
		FL301	633-032K	O	O	O	O	O	O	O	O	COIL,IFT	BIAC OSC,1CHIP 5V(KS-75M) KWAN	
⚠		IC101	0IPMGSK003A	O	O	O	O	O	O	O	O	IC,POWER MANAGEMENT	STR-A6351 SANKEN 8 DIP ST SMPS	
⚠		IC102	657-063A	O	O	O	O	O	O	O	O	SENSOR	LTV-817B,PHOTO COUPLER(LITEON)	
		IC103	0IKE431000A	O	O	O	O	O	O	O	O	IC,KEC	KIA431 3 PIN TP	
		IC301	0ILNRSA005B	O	O	O	O	O	O	O	O	IC,LINEAR	LA71750EM SANYO 100PIN QFP TRA	
		IC501	0IMCRHI027A	O	O	O	O	O	O	O	O	IC,MICRO CONTROLLER	HD64322197SA19F HITACHI 112PIN	
		IC503	0ICS241600B	O	O	O	O	O	O	O	O	IC,CATALYST	CAT24W16P 8P DIP ST 16K SERIAL	
		IC504	0IKE703100A	O	O	O	O	O	O	O	O	IC,KEC	KIA7031P 3P 3.1V RESET(TAPING)	
		IC505	0IKE704200B	O	O	O	O	O	O	O	O	IC,KEC	KIA7042P 3P 4.2V RESET(TAPING)	
		IC506	0ILNRPY001A	O	O			O	O	O	O	IC,LINEAR	PT6955 PTC 24P SOP ST LED DRIV	
		IC751	0IIT341700B				O			O	O	IC,ITT	MSP3417D-QG QFP44 BK NICAM+A2	
		IC7V1	0ILNRMN001A								O	IC,LINEAR	SDA5650 MICRONAS 14 DIP ST VPS	
		IC801	0IPH960500A				O			O	O	IC,PHILIPS	TDA9605H QFP44 BK HIFI AMP+HIF	
		IC9F1	0IPRPMT001A		O				O			IC,PERIPHERALS	MM1111XS MITSUMI 8 SIP ST AUDI	
		J301	874-000T	O	O	O	O	O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		J502	874-000T	O	O	O	O	O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		J506	874-000T	O	O	O	O	O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		J509	874-000T	O	O	O	O	O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		J901	874-000T	O	O	O	O	O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		J902	874-000T					O				WIRE COPPER TIN COATED	D=0.6 ROLL	
		J903	874-000T				O			O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		J904	874-000T		O		O		O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		J908	874-000T				O			O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		J909	874-000T				O			O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		J9M1	874-000T	O	O	O		O	O			WIRE COPPER TIN COATED	D=0.6 ROLL	
		J9M2	874-000T	O	O	O		O	O			WIRE COPPER TIN COATED	D=0.6 ROLL	
		J9M3	874-000T	O	O	O		O	O			WIRE COPPER TIN COATED	D=0.6 ROLL	
		J9M4	874-000T	O	O	O		O	O			WIRE COPPER TIN COATED	D=0.6 ROLL	
		J9M5	874-000T	O	O	O		O	O			WIRE COPPER TIN COATED	D=0.6 ROLL	
		J9M6	874-000T	O	O	O		O	O			WIRE COPPER TIN COATED	D=0.6 ROLL	
		J9M7	874-000T	O	O	O		O	O			WIRE COPPER TIN COATED	D=0.6 ROLL	
		J9M8	874-000T	O	O	O		O	O			WIRE COPPER TIN COATED	D=0.6 ROLL	
		JK801	6612R-C002C							O	O	JACK,RCA	RCA-208C-06 YUQIU WH-RD	
		JK901	6620RM0002K	O		O		O				JACK,SCART	DSAM-0120 DOOWON 1F-21P (BK)	
		JK901	6620RM0002L		O		O		O	O	O	JACK,SCART	DSAM-0139 DOOWON 2F-21P(BK-BK)	
		JK9F3	6612R-C001D		O			O	O			JACK,RCA	DPAM-0153 DOOWON 2P YL/WH	
		JK9F3	6612RIV005D							O	O	JACK,RCA	DPAM-0152 DOOWON 3PIN YL/WH/RD	
		L101	636-004C	O	O	O	O	O	O	O	O	FILTER(CIRC),EMC	BEAD CORE BFS3550R2FD8,R T/P	
⚠		L102	616-145H	O	O	O	O	O	O	O	O	FILTER(CIRC)	SHT LFS2020V4-04350	
		L103	633-088G	O	O	O	O	O	O	O	O	COIL,CHOKE	CHOCK(22MH) 5MM TOKO TP	
		L104	633-088G	O	O	O	O	O	O	O	O	COIL,CHOKE	CHOCK(22MH) 5MM TOKO TP	
		L106	636-004C	O	O	O	O	O	O	O	O	FILTER(CIRC),EMC	BEAD CORE BFS3550R2FD8,R T/P	
		L301	0LR0102J0N5	O	O	O	O	O	O	O	O	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	
		L302	0LR1000K035	O	O	O	O	O	O	O	O	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	
		L303	0LR0102J0N5	O	O	O	O	O	O	O	O	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	
		L304	0LR0102J0N5	O	O	O	O	O	O	O	O	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	
		L305	0LR1000K035	O	O	O	O	O	O	O	O	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	
		L307	0LR0102J0N5	O	O	O	O	O	O	O	O	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	
		L501	0LA0122K018	O	O	O	O	O	O	O	O	INDUCTOR AXIAL LEAD	12M K 2.3X3.4 L5 TP	
		L503	0LR1000K035	O	O	O	O	O	O	O	O	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	
		L504	0LR0102J0N5	O	O	O	O	O	O	O	O	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	
		L505	0LR1000K035	O	O	O	O	O	O	O	O	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	
		L506	635-027C	O	O	O	O	O	O	O	O	INDUCTOR,RADIAL LEAD	EL0405RA SKI150G-3 K-TDK 15UH	
		L5G2	0LR1500K035	O	O	O	O	O	O	O	O	INDUCTOR RADIAL LEAD	150M K 6X6 L5 TP	
		L5S1	0LA0332K018	O	O	O	O	O	O	O	O	INDUCTOR AXIAL LEAD	33M K 2.3X3.4 L5 TP	

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S	AL	LOCA.NO	PART NO(LG)	A	B	C	D	E	F	G	H	DESCRIPTION	SPECIFICATION	REMARKS
		L702	0LR1000K035	O	O	O	O	O	O	O	O	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	
		L703	0LR1000K035	O	O	O	O	O	O	O	O	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	
		L704	0LA0821K018	O	O	O	O	O	O	O	O	INDUCTOR AXIAL LEAD	8.2M K 2.3X3.4 L5 TP	
		L705	0LR1000K035	O	O	O	O	O	O	O	O	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	
		L751	0LR0102J0N5				O			O	O	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	
		L753	0LR0102J0N5				O			O	O	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	
		L7V1	0LR1000K035								O	INDUCTOR RADIAL LEAD	100M K 6X6 L5 TP	
		L801	0LR0102J0N5				O			O	O	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	
		L802	0LR0102J0N5				O			O	O	INDUCTOR,RADIAL LEAD	10UH 5% TP 3X5 TR5	
		L8R1	0LA1000K018				O			O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L8R2	0LA1000K018				O			O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L901	0LA1000K018	O	O	O	O	O	O	O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L902	0LA1000K018	O	O	O	O	O	O	O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L903	874-000T	O	O	O	O	O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		L904	0LA1000K018	O	O	O	O	O	O	O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L905	636-004C	O	O	O	O	O	O	O	O	FILTER(CIRC),EMC	BEAD CORE BFS3550R2FD8,R T/P	
		L906	0LA1000K018	O	O	O	O	O	O	O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L907	636-004C	O	O	O	O	O	O	O	O	FILTER(CIRC),EMC	BEAD CORE BFS3550R2FD8,R T/P	
		L911	0LA1000K018		O		O		O	O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L912	0LA1000K018		O		O		O	O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L913	874-000T		O		O		O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		L914	0LA1000K018		O		O		O	O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L915	0LA1000K018		O		O		O	O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L9F1	0LA1000K018		O			O	O	O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		L9F2	0LA1000K018		O			O	O	O	O	INDUCTOR AXIAL LEAD	100M K 2.3X3.4 L5 TP	
		LD501	4931R-0017C	O	O	O	O	O	O	O	O	HOLDER ASSY	LED(DI-CKD)LOCAL	
		LED501	6301R2U002D	O	O			O	O	O	O	LED ASSY	TOF-3462AGE-B OASIS UNIVERSAL	
		LED502	6301R2U001A			O	O					LED ASSY	TOH-30M05G1 OASIS UNIVERSAL 6	
		MS501	6600JB8005B	O	O	O	O	O	O	O	O	SWITCH,MODE	NON 5V 1MA VERTICAL -G	
		P3D01	561-234S				O			O	O	CONNECTOR (CIRC),FFC/FPC	GF120-9S-TS-A LG CABLE 9P 1.25	
		P3D01	561-234Y		O				O			CONNECTOR (CIRC),FFC/FPC	GF120-6S-TS-A LGC 6PIN 1.25MM	
		P3D01	561-234Z	O		O		O				CONNECTOR (CIRC),FFC/FPC	GF120-3S-TS-A LGC 3PIN 1.25MM	
		P3D02	6630R5S010A	O	O	O	O	O	O	O	O	CONNECTOR (CIRC)	GF105-06S-TS LG CABLE 6PIN 2MM	
		P3D03	561-251B	O	O	O	O	O	O	O	O	CONNECTOR(CIRC),DRAWING	GB201-2P-TS-B(LGC)	
		PBM00	3111R-0089C		O				O			CASE ASSEMBLY	VCR - PRE-AMP (02-PAL)	
		PBM00	6871R-7801L	O								PWB(PCB) ASSEMBLY,TOTAL	MAIN FC230Y NA5HLL	
		PBM00	6871R-7801M					O				PWB(PCB) ASSEMBLY,TOTAL	MAIN FC290Y NA5HLL	
		PBM00	6871R-7801S			O						PWB(PCB) ASSEMBLY,TOTAL	MAIN FD240Y NA5HLL	
		PBM00	6871R-7801V				O					PWB(PCB) ASSEMBLY,TOTAL	MAIN FD941NY NA5HLL	
		PBM00	6871R-7801W								O	PWB(PCB) ASSEMBLY,TOTAL	MAIN FC999NY NA5HLL	
		PBM00	6871R-7801X							O		PWB(PCB) ASSEMBLY,TOTAL	MAIN FC991NY NA5HLL	
		PKM01	561-036B					O	O	O	O	CONNECTOR (CIRC),WAFER	MA V 8283-0312 WH ELCO	
		PKM04	561-036B		O							CONNECTOR (CIRC),WAFER	MA V 8283-0312 WH ELCO	
		PMC01	6630R-BE01L	O	O	O	O	O	O	O	O	CONNECTOR (CIRC),BOARD TO BOAR	JE612-12 JAE EUN 12P 2.0MM	
		PMK04	6631R-E007K		O			O	O	O	O	CONNECTOR ASSEMBLY	8283/9073 3 PIN 150M/M UL1061	
		PROGRAM	6957R-333BK	O								PROGRAM	02 CA 80 F7 00 32 (FC230Y NA5H	
		PROGRAM	6957R-333BL					O				PROGRAM	12 CA 80 F7 00 32 (FC290Y NA5H	
		PROGRAM	6957R-333BN		O				O			PROGRAM	30 CA 80 F7 00 32 (FC491Y NA5H	
		PROGRAM	6957R-333BS				O					PROGRAM	2C C8 C0 F7 00 32 (FD941NY NA5	
		PROGRAM	6957R-333BQ			O						PROGRAM	02 C8 C0 F7 00 32 (FD240Y NA5H	
		PROGRAM	6957R-333BT								O	PROGRAM	BC CA 88 F7 00 32 (FC999NY NA5	
		PROGRAM	6957R-333BU							O		PROGRAM	3C CA 80 F7 00 32 (FC991NY NA5	
		PW101	561-292B	O	O	O	O	O	O	O	O	CONNECTOR	GP390 LGC 3P 3.96 STRAIGHT SN	
		Q151	0TR127309AA	O	O	O	O	O	O	O	O	TRANSISTOR	KTA1273-TP-Y (KTA966A)KEC	
		Q152	0TR127309AA	O	O	O	O	O	O	O	O	TRANSISTOR	KTA1273-TP-Y (KTA966A)KEC	
		Q154	0TR126809BA	O	O	O	O	O	O	O	O	TRANSISTOR,BIPOLARS	KTA1268-BL TP KEC	
		Q155	0TR320509AB	O	O	O	O	O	O	O	O	TRANSISTOR	KTC3205-TP-Y (KTC2236A)KEC	
		Q157	0TR120309AE	O	O	O	O	O	O	O	O	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q159	0TR127309AA	O	O			O	O	O	O	TRANSISTOR	KTA1273-TP-Y (KTA966A)KEC	
		Q161	0TR534309BA	O	O			O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		Q162	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		Q163	0TR120109AC	O	O	O	O	O	O	O	O	TRANSISTOR	SRC1201 TP AUK TO92 4.7K,4.7K	
		Q164	0TR120309AE	O	O	O	O	O	O	O	O	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q165	0TR220309AF	O	O	O	O	O	O	O	O	TRANSISTOR	SRA2203 TP AUK TO92 22K,22K	
		Q166	0TR127309AA	O	O	O	O	O	O	O	O	TRANSISTOR	KTA1273-TP-Y (KTA966A)KEC	
		Q301	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	

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		Q302	0TR198009CA	O	O	O	O	O	O	O	O	TRANSISTOR	2SA1980G TP AUK TO92	
		Q303	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		Q304	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		Q305	0TR198009CA	O	O	O	O	O	O	O	O	TRANSISTOR	2SA1980G TP AUK TO92	
		Q306	0TR534409AA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5344Y TP	
		Q307	0TR198009CA		O		O		O	O	O	TRANSISTOR	2SA1980G TP AUK TO92	
		Q308	0TR198009CA	O	O	O	O	O	O	O	O	TRANSISTOR	2SA1980G TP AUK TO92	
		Q309	0TR198009CA	O	O	O	O	O	O	O	O	TRANSISTOR	2SA1980G TP AUK TO92	
		Q501	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		Q502	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		Q503	0TR127309AA	O	O	O	O	O	O	O	O	TRANSISTOR	KTA1273-TP-Y (KTA966A)KEC	
		Q504	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		Q514	0TR120309AE	O	O	O	O	O	O	O	O	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q515	0TR120309AE	O	O	O	O	O	O	O	O	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q5P1	0TR120309AE			O	O					TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q5P2	0TR120309AE			O	O					TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q5P3	0TR120309AE			O	O					TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q5P4	0TR120309AE			O	O					TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q5P5	0TR120309AE			O	O					TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q5P6	0TR120309AE			O	O					TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q5S1	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		Q901	0TR120309AE	O	O	O	O	O	O	O	O	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q902	0TR220309AF	O	O	O	O	O	O	O	O	TRANSISTOR	SRA2203 TP AUK TO92 22K,22K	
		Q903	0TR120309AE	O	O	O	O	O	O	O	O	TRANSISTOR	SRC1203 TP AUK TO92 22K,22K	
		Q906	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		Q9M1	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		Q9M2	0TR534309BA	O	O	O	O	O	O	O	O	TRANSISTOR	2SC5343-L TP AUK TO92	
		R101	614-007A	O	O	O	O	O	O	O	O	RESISTOR	2.7/2W CEMENT SMPS V	
		R102	0RD1803F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	180K OHM 1/6 W 0.05 TA26	
		R103	0RD0682F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	68 OHM 1/6 W 5.00% TA26	
		R104	0RS5602K619	O	O	O	O	O	O	O	O	RESISTOR,FIXED METAL OXIDE FIL	56K OHM 2 W 5.00% TR	
		R105	0RF0101A619	O	O	O	O	O	O	O	O	RESISTOR,DRAWING	1 OHM 1/2 W(7.0) 5.00% TR	
		R106	0RD1803F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	180K OHM 1/6 W 0.05 TA26	
		R109	0RS0350K619	O	O	O	O	O	O	O	O	RESISTOR,FIXED METAL OXIDE FIL	0.35 OHM 2 W 5.00% TR	
		R112	0RD1003F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	
		R116	0RD2200F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	
		R117	0RD2201F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	
		R118	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R119	0RN3301F408	O	O	O	O	O	O	O	O	RESISTOR,FIXED METAL FILM	3.3K OHM 1/6 W 1% TA26	
		R120	0RN3001F408	O	O	O	O	O	O	O	O	RESISTOR,FIXED METAL FILM	3K OHM 1/6 W 1% TA26	
		R121	874-000T	O	O	O	O	O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		R122	0RD1003F608	O	O			O	O	O	O	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	
		R125	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R126	0RD6800F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	680 OHM 1/6 W 5% TA26	
		R151	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R152	0RD3300F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	
		R153	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R154	0RD3300F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	
		R155	0RD3301F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	3.3K OHM 1/6 W 5% TA26	
		R157	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R158	0RD1802F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	18K OHM 1/6 W 5% TA26	
		R159	0RD4700F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	
		R161	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R163	0RD4701F608	O	O			O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R166	0RD2201F608	O	O			O	O	O	O	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	
		R167	0RD3901F608	O	O			O	O	O	O	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	
		R170	0RD5601F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	
		R172	0RD2700F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	270 OHM 1/6 W 5% TA26	
		R173	0RD2700F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	270 OHM 1/6 W 5% TA26	
		R1B1	0RD1504H632	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1.5M OHM 1/2 W 5.00% MF10	
		R301	0RD5602F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	56K OHM 1/6 W 5% TA26	
		R303	0RD1802F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	18K OHM 1/6 W 5% TA26	
		R304	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R305	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R306	0RD2202F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	22K OHM 1/6 W 5% TA26	
		R307	0RD2201F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	

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		R308	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R309	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R310	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R311	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R312	0RD6802F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	68K OHM 1/6 W 5% TA26	
		R313	0RD0221F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.2 OHM 1/6 W 5% TA26	
		R314	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R315	0RD0472F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	47 OHM 1/6 W 5% TA26	
		R316	0RD1000F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R317	0RD5601F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	
		R318	0RD3901F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	
		R319	0RD5600F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R320	0RD1500F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	150 OHM 1/6 W 5% TA26	
		R321	0RD1201F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1.2K OHM 1/6 W 5% TA26	
		R322	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R324	0RD3303F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	330K OHM 1/6 W 5% TA26	
		R325	0RD4700F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	
		R326	0RD1202F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	12K OHM 1/6 W 5% TA26	
		R327	0RD5601F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	
		R328	0RD2700F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	270 OHM 1/6 W 5% TA26	
		R329	0RD1202F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	12K OHM 1/6 W 5% TA26	
		R330	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R331	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R334	0RD2701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.7K OHM 1/6 W 5% TA26	
		R335	0RD6801F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	6.8K OHM 1/6 W 5% TA26	
		R336	0RD1003F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	
		R337	0RD2201F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	
		R338	0RD2700F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	270 OHM 1/6 W 5% TA26	
		R339	0RD5600F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R340	0RD1802F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	18K OHM 1/6 W 5% TA26	
		R342	0RD5600F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R343	0RD0752F608		O		O		O	O	O	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	
		R344	0RD4700F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	
		R345	0RD4700F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	
		R346	0RD1000F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R347	0RD1000F608		O		O		O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R349	0RD1801F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1.8K OHM 1/6 W 5% TA26	
		R350	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R351	0RD8203F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	820K OHM 1/6 W 0.05 TA26	
		R3A1	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R501	0RD1000F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R502	0RD1000F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R503	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R504	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R505	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R506	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R507	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R508	0RD2201F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	
		R509	0RD2201F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	
		R510	0RD2201F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	
		R511	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R512	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R513	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R514	0RD1203F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	120K OHM 1/6 W 5% TA26	
		R515	0RD2700F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	270 OHM 1/6 W 5% TA26	
		R516	0RD4703F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	470K OHM 1/6 W 5% TA26	
		R517	0RD4700F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	
		R518	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R520	0RD3901F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	
		R521	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R522	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R523	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R524	0RD0222F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	22 OHM 1/6 W 5% TA26	
		R525	0RD5601F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	
		R526	0RD5601F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	
		R527	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	

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		R528	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R529	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R530	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R531	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R535	0RD4703F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	470K OHM 1/6 W 5% TA26	
		R542	0RD2201F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	
		R543	0RD1000F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R544	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R546	0RD5601F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	
		R547	0RD1202F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	12K OHM 1/6 W 5% TA26	
		R548	0RD1003F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	
		R550	0RD2200F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	
		R553	0RD2200F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	
		R555	0RD2200F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	
		R556	0RD2202F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	22K OHM 1/6 W 5% TA26	
		R557	0RD2702F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	27K OHM 1/6 W 5% TA26	
		R558	0RD2202F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	22K OHM 1/6 W 5% TA26	
		R559	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R560	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R561	0RD5600F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R562	0RD5600F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R563	0RD5601F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	
		R564	0RD2702F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	27K OHM 1/6 W 5% TA26	
		R566	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R567	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R568	0RD6802F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	68K OHM 1/6 W 5% TA26	
		R569	0RD1004F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1M OHM 1/6 W 5% TA26	
		R570	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R575	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R576	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R577	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R578	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R579	0RD5602F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	56K OHM 1/6 W 5% TA26	
		R582	0RD1000F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R583	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R589	0RD1004F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1M OHM 1/6 W 5% TA26	
		R591	0RD1003F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	
		R5A2	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R5A3	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R5A5	0RD4703F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	470K OHM 1/6 W 5% TA26	
		R5B3	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R5B4	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R5B5	0RD1000F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R5C1	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R5C5	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R5C6	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R5C7	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R5C9	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R5G1	0RD4702F608	O	O			O	O	O	O	RESISTOR,FIXED CARBON FILM	47K OHM 1/6 W 5% TA26	
		R5G2	0RD1000F608	O	O			O	O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R5G3	0RD1000F608	O	O			O	O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R5G4	0RD1000F608	O	O			O	O	O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R5P2	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R5P3	0RD1002F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5% TA26	
		R5R1	0RD3300F608			O	O					RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	
		R5R2	0RD3300F608			O	O					RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	
		R5R3	0RD3300F608			O	O					RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	
		R5R4	0RD3300F608			O	O					RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	
		R5R5	0RD3300F608			O	O					RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	
		R5R6	0RD3300F608			O	O					RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	
		R5R7	0RD3300F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5% TA26	
		R5R8	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R5S1	0RD5601F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	
		R5T1	0RD1801F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1.8K OHM 1/6 W 5% TA26	
		R5T10	0RD1501F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1.5K OHM 1/6 W 5% TA26	
		R5T11	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	

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S	AL	LOCA.NO	PART NO(LG)	A	B	C	D	E	F	G	H	DESCRIPTION	SPECIFICATION	REMARKS
		R5T2	0RD1501F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1.5K OHM 1/6 W 5% TA26	
		R5T3	0RD2201F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.2K OHM 1/6 W 5% TA26	
		R5T4	0RD2701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	2.7K OHM 1/6 W 5% TA26	
		R5T5	0RD3901F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	
		R5T9	0RD1801F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1.8K OHM 1/6 W 5% TA26	
		R706	0RD2200F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	
		R707	0RD2200F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	
		R709	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R753	0RD1001F608				O			O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R754	0RD3301F608				O			O	O	RESISTOR,FIXED CARBON FILM	3.3K OHM 1/6 W 5% TA26	
		R755	0RD3301F608				O			O	O	RESISTOR,FIXED CARBON FILM	3.3K OHM 1/6 W 5% TA26	
		R758	0RD4701F608				O			O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R759	0RD5601F608				O			O	O	RESISTOR,FIXED CARBON FILM	5.6K OHM 1/6 W 5% TA26	
		R7M1	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R7M2	0RD2200F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	
		R7M3	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R7M5	0RD2200F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	220 OHM 1/6 W 5% TA26	
		R7V1	0RD1004F608								O	RESISTOR,FIXED CARBON FILM	1M OHM 1/6 W 5% TA26	
		R7V2	0RD1003F608								O	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5% TA26	
		R7V3	0RD6801F608								O	RESISTOR,FIXED CARBON FILM	6.8K OHM 1/6 W 5% TA26	
		R7V4	0RD5603F608								O	RESISTOR,FIXED CARBON FILM	560K OHM 1/6 W 5.00% TA26	
		R7V5	0RD6801F608								O	RESISTOR,FIXED CARBON FILM	6.8K OHM 1/6 W 5% TA26	
		R7V6	0RD5603F608								O	RESISTOR,FIXED CARBON FILM	560K OHM 1/6 W 5.00% TA26	
		R7V7	0RD4701F608								O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R7V8	0RD1000F608								O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R7V9	0RD1000F608								O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R801	0RD4701F608				O			O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R802	0RD4701F608				O			O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R817	0RD3304F608				O			O	O	RESISTOR,FIXED CARBON FILM	3.3M OHM 1/6 W 5.00% TA26	
		R818	0RD3302F608				O			O	O	RESISTOR,FIXED CARBON FILM	33K OHM 1/6 W 5% TA26	
		R819	0RD2701F608				O			O	O	RESISTOR,FIXED CARBON FILM	2.7K OHM 1/6 W 5% TA26	
		R820	0RD3902F608				O			O	O	RESISTOR,FIXED CARBON FILM	39K OHM 1/6 W 5% TA26	
		R821	0RD2701F608				O			O	O	RESISTOR,FIXED CARBON FILM	2.7K OHM 1/6 W 5% TA26	
		R822	0RD3302F608				O			O	O	RESISTOR,FIXED CARBON FILM	33K OHM 1/6 W 5% TA26	
		R823	0RD4700F608				O			O	O	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5% TA26	
		R824	0RD1000F608				O			O	O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R825	0RD5600F608				O			O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R826	0RD1801F608				O			O	O	RESISTOR,FIXED CARBON FILM	1.8K OHM 1/6 W 5% TA26	
		R827	0RD1001F608				O			O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R828	0RD1001F608				O			O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R830	0RD4701F608				O			O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R831	0RD4701F608				O			O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R8R1	0RD5600F608				O			O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R8R2	0RD5600F608				O			O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R901	0RD0752F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	
		R902	0RD0752F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	
		R903	0RD3901F608	O	O	O		O	O			RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	
		R903	0RD4701F608				O			O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R904	0RD4702F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	47K OHM 1/6 W 5% TA26	
		R905	0RD5600F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R906	0RD5600F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R911	0RD0752F608		O		O		O	O	O	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	
		R912	0RD0752F608		O		O		O	O	O	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	
		R913	0RD5600F608		O		O		O	O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R914	0RD5600F608		O		O		O	O	O	RESISTOR,FIXED CARBON FILM	560 OHM 1/6 W 5% TA26	
		R943	0RD1501F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1.5K OHM 1/6 W 5% TA26	
		R964	0RD8200F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	820 OHM 1/6 W 5% TA26	
		R965	0RD1001F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5% TA26	
		R968	874-000T					O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		R969	874-000T					O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		R9C2	874-000T	O	O	O	O	O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	
		R9F1	0RD4701F608		O			O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R9F2	0RD4701F608							O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R9F2	874-000T		O			O	O			WIRE COPPER TIN COATED	D=0.6 ROLL	
		R9F3	0RD0752F608		O			O	O	O	O	RESISTOR,FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	
		R9K1	874-000T					O	O	O	O	WIRE COPPER TIN COATED	D=0.6 ROLL	

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		R9K2	0RD1000F608		O							RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5% TA26	
		R9M1	0RD4702F608	O	O	O		O	O			RESISTOR,FIXED CARBON FILM	47K OHM 1/6 W 5% TA26	
		R9M2	0RD3901F608	O	O	O		O	O			RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	
		R9M3	0RD4702F608	O	O	O		O	O			RESISTOR,FIXED CARBON FILM	47K OHM 1/6 W 5% TA26	
		R9M4	0RD3901F608	O	O	O		O	O			RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5% TA26	
		R9M5	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		R9M6	0RD4701F608	O	O	O	O	O	O	O	O	RESISTOR,FIXED CARBON FILM	4.7K OHM 1/6 W 5% TA26	
		RC501	6712R1938GB	O	O	O	O	O	O	O	O	REMOTE CONTROLLER RECEIVER	TSOP2238WE1 VISHAY 37.9KHZ 19M	
		RS501	6500RAB003A	O	O	O	O	O	O	O	O	SENSOR	SG-260 KODENSHI D33 REEL SENSO	
		RS502	6500RAB003A	O	O	O	O	O	O	O	O	SENSOR	SG-260 KODENSHI D33 REEL SENSO	
		SW5T1	556-213C	O	O	O	O	O	O	O	O	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	
		SW5T10	556-213C	O	O	O	O	O	O	O	O	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	
		SW5T11	556-213C			O	O					SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	
		SW5T12	556-213C	O		O	O					SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	
		SW5T13	556-213C	O		O	O					SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	
		SW5T14	556-213C	O	O			O	O	O	O	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	
		SW5T3	556-213C	O	O	O	O	O	O	O	O	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	
		SW5T4	556-213C	O	O	O	O	O	O	O	O	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	
		SW5T5	556-213C	O	O	O	O	O	O	O	O	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	
		SW5T6	556-213C	O	O	O	O	O	O	O	O	SWITCH,DETECTOR	THVV951BAA POSTECH DC 12 V 5-0	
		SW971	556-219B		O							SWITCH,TACT	THVV502GAA POSTECH DC 12 V 5-	
		SW972	556-219B		O							SWITCH,TACT	THVV502GAA POSTECH DC 12 V 5-	
		SW996	556-219B					O	O	O	O	SWITCH,TACT	THVV502GAA POSTECH DC 12 V 5-	
		SW997	556-219B					O	O	O	O	SWITCH,TACT	THVV502GAA POSTECH DC 12 V 5-	
⚠		T101	642-015G	O	O	O	O	O	O	O	O	TRANSFORMER,SMPS[COIL]	SJE-015G/SHT-015G SJ/SH/CS/LSE	
		TU701	6700PFPL06F	O	O	O	O	O	O	O	O	TUNER	TADC-M401D(GKI,LGIT) LG INOTEK	
		X301	6202R2443AC	O	O	O	O	O	O	O	O	RESONATOR,CRYSTAL	HC49U BUBANG 4-433709MHZ 15	
		X501	6212AA2100C	O	O	O	O	O	O	O	O	RESONATOR,CRYSTAL	HC-49S BUBANG 10MHZ +/- 30 PPM	
		X502	6202R-DA01A	O	O	O	O	O	O	O	O	RESONATOR,CRYSTAL	CFS-308 CITIZEN 32-768KHZ	
		X751	529-021Q				O			O	O	RESONATOR,CRYSTAL	49U BUBANG 18432000HZ 30PPM 16	
		ZD151	0DZ130009AB	O	O	O	O	O	O	O	O	DIODE,ZENERS	MTZ13C TP ROHM-K	
		ZD503	0DZ620009AM	O	O	O	O	O	O	O	O	DIODE,ZENERS	UZ-6.2BSC 26MM PYUNG CHANG TP	
		ZD801	0DZ562609BB				O			O	O	DIODE,ZENER	UZ-5.6BSB 26MM TP PYUNG CHANG	
		ZD802	0DZ562609BB				O			O	O	DIODE,ZENER	UZ-5.6BSB 26MM TP PYUNG CHANG	
		ZD803	0DZ130009AA				O			O	O	DIODE,ZENER	MTZ13A TP ROHM-K	
		ZD804	0DZ130009AA				O			O	O	DIODE,ZENER	MTZ13A TP ROHM-K	

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